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LIVING WITH CHANGE:
OLDER WOMEN'S PERCEPTIONS OF HAVING
A MYOCARDIAL INFARCTION

by

BERNICE RUTH SUTHERLAND ©

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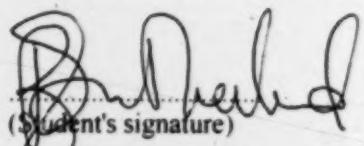

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This is for all the dedicated caregivers who give of themselves tirelessly every day. To Bill, who was unable to go on and committed suicide several months after his wife's MI.

ABSTRACT

The purpose of the study was to explore and describe the elderly woman's (70+ years) perceptions of having a myocardial infarction. Structured, open-ended, face-to-face interviews with eleven women were utilized to collect qualitative data. The use of an exploratory qualitative approach facilitated the generation of five phases: searching for a diagnosis, being hit with the reality, discovering the nature of the change, adjusting to the change, and moving on with the change. Throughout the phases the women were faced with the challenges of being in control, managing uncertainty, making sense, being independent, and sheltering others. The continuous process of change in their lives was taken for granted by these women. Thus the core variable which emerged from this study was 'living with change'. By having an understanding of the perspective of elderly women who have a MI, nurses will be more effective when caring for these individuals.

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CHAPTER ONE

Introduction

In 1991, cardiovascular disease (CVD) accounted for 41 percent of all female deaths in Canada, making it the number one killer of women (Statistics Canada, 1991). This translates into 37, 000 deaths of women per year because of myocardial infarction (MI) and stroke. In fact, women are eight times more likely to die of heart disease and stroke than from breast cancer (Heart and Stroke Foundation of Canada, 1993). Although more prevalent in men, coronary heart disease (CHD) is more deadly for women. In research studies, the female gender has persisted as an independent predictor of mortality (Becker, Terrin, Ross, Khatterud, Nickens, Gore, & Braunwald, 1994; Greenland, Reicher-Ross, Goldbourt, & Behar, 1991; Maynard, Litwin, Martin, & Weaver, 1992).

The prevalence of cardiovascular disease (CVD) increases with age, with resultant high disability rates. At age 45, a women's risk of death by heart disease and stroke increases by four times (Heart and Stroke Foundation, 1993). It is estimated that 1 in 3 women over the age of 65 has some form of CVD, and over half the women over the age of 75 who have CVD are disabled by their disease (Eaker, Chesebro, Sades,Wenger, Whisnant, & Winston, 1993). Many experts attribute this high rate, to the belief which society holds in general, that only men are susceptible to CVD. Decades of research into CHD has only contributed to this myth by studying samples comprised mostly of men. The information obtained from these studies has been erroneously generalized to women with CHD. While the dangers of CVD have been long known in men, the role of

cardiovascular disease in women is only now beginning to be recognized. Studies of women who have CHD are limited, especially elderly women: the age group which CHD most seriously affects. The amount of danger cardiovascular problems pose to the aging woman is still not widely known.

In the future, an epidemic of heart disease among women is predicted because of women's increased longevity and the increase of stress in women's lives. The increase in cigarette smoking among young girls has also been cited as contributing, in that, two out of three cases of CHD in young women could be directly attributed to cigarette smoking (Beard, Kottke, Annegers, & Ballard, 1989). Since the early 1990's, an awareness of the lack of research on women with CHD has existed. In order to understand the effect CHD has on women, in particular elderly women (70+ years of age), insight must be gained into their unique experiences. An understanding of elderly women's perceptions of having a MI would contribute significantly to an understanding of the experience.

Purpose of the Study

Our present knowledge of elderly women with CHD is inadequate, for although investigators have generated an impressive list of behavioral responses to MI's, they have failed to use women's perceptions to obtain an understanding of the experience. No studies were found that explored or described elderly women's perceptions of having a MI from the emic perspective. In order to plan effective interventions for elderly women who have

experienced a MI, nursing must have an understanding of their unique experiences. Nursing interventions should reflect an understanding about elderly women and how they view this experience in the context within which they live their lives. The purpose of the study was to explore and describe the elderly woman's (70+ years) perceptions of having a myocardial infarction.

Significance of the Study

Determining the perceptions of elderly women who have had a MI is significant for the following reasons: the current state of knowledge, the anticipated increase in the future incidence of CHD in women, and the growing elderly segment of our population. The findings of this study can be used as a means to assess the effectiveness of the health care system from the post-MI elderly woman's perspective, a perspective that is anticipated to be increasingly important in the future due to the health care system's financial limitations. Also, the expectations of health care professionals and post-MI elderly women can be compared. Once an understanding of the experience of having a MI from the perspective of elderly women has been ascertained, health care professionals will be able to enhance their value and effectiveness when caring for these individuals. This study represented an opportunity to determine what elderly post-MI women experience from their perspective.

CHAPTER TWO

Literature Review

Research has acknowledged that differences, between women and men with coronary heart disease (CHD), do in fact exist. Gender differences in regards to biophysical and psychosocial aspects of CHD are being investigated so that an understanding of sex-related differences can be developed in many areas. The following is a review of the recent literature addressing the risk factors, clinical presentation, diagnosis, therapeutic interventions, psychosocial responses, and the rehabilitation of women with CHD.

Risk Factors

Risk factors such as cigarette smoking, diabetes mellitus, hypertension, elevated serum cholestrol, family history of cardiac disease, use of oral contraceptives and deprivation of estrogen, after natural or surgical menopause, predispose women to CHD (Corras, Becker, Ockene, & Hamilton, 1990). Studies have indicated that diabetes and elevated serum cholestrol appear to be greater risk factors for women (Kannel & Wilson, 1995). Hypertension (Hall,1990; Kudenchuk, Maynard, Martin, Wirkus, & Weaver, 1996), sedentary lifestyle and obesity (Stevenson, Davy, & Seals, 1995) have been identified as important risk factors for coronary artery disease in elderly women. Other risk factors unique to women are now being acknowledged in the literature, such as emotional stressors (Eaker, Pinsky, & Castelli, 1992), educational level (Feldman, Makuc, Kleinman, & Cornoni-Huntley, 1989), occupations involving low control and high demands (Hall, 1989), Type A behavior (Eaker, Abbott, & Kannel, 1989; Haynes, Feinleib,

& Kannel, 1980), social support (Haynes & Czajkowski, 1993; Berkman, Summers & Horwitz, 1992), and multiple role pressures (Theorell, 1991; LaRosa, 1988). Further research is needed to explain the effects that these risk factors have in the development of CHD in women. Only then will women be able to effectively address risk reduction.

The most signficant CHD risk factor for women is their age. The prevalence of risk factors increases substantially with age. Women aged 65 to 74 years have the highest occurrence (37%) of two or more risk factors (Heart and Stroke Foundation of Canada, 1993). The women in this age group are also more likely to have concomitant chronic diseases such as arthritis and diabetes mellitus (Young & Kahana, 1993). The incidence of CHD rises significantly 10 to 20 years after women reach menopause (Perlman, Wolf, Finucane, & Madans, 1989). An increased risk of CHD has been linked to menopause (Light & Girdler, 1993). This has led to hormone replacement therapy (HRT) being presented to older women as the most powerful form of prevention against CHD (MacPherson, 1992). Research has shown estrogen to be associated with a risk reduction for CHD (Barrett-Connor & Bush, 1991; Stampter, Colditz, Willett, Manson, Rosner, Speizer, & Hennekens, 1991). In one study, this risk reduction extended well into the eighth decade of life for women (Manolio, Furberg, Shemanski, Psaty, O'Leary, Tracy, & Bush, 1993). This medicalization of women's reproductive system negates the known risk being studied, but increased breast and endometrial cancer has been cited in the literature as outcomes (Bilezikian,

1994). Many researchers have concluded that informed decisions in regards to HRT will not be possible until more studies have been done (Barrett-Connor & Bush, 1991; Kennington, 1994; Wenger, 1992; Sullivan & Fowlkes, 1996).

To date, only one study has asked elderly women about their preventive behaviors in relation to CHD (Conn, Libbus, Thompson, & Kelley, 1994). The elderly women identified the barriers to dietary changes as taste and inconvience. Physical exercise was acknowledged as beneficial by the sample but time constraints, physical health limitations, and inconvenience were cited as obstacles. Amoung the women who reported hypertension, antihypertensive medications were viewed solely as a medication that would prevent strokes. Family was seen as the most important referent for health related behaviors amoung this older group of women, suggesting that health promotion should include the families of older women.

Clinical Presentation

Angina pectoris is the usual presenting symptom for CHD in women (Kannel & Vokonas, 1992). More common in women, is the occurrence of microvascular angina, variant angina, and silent ischemia (Bittner, 1994). Older women have been documented as commonly having atypical presentations of acute ischemic heart disease in that chest pain with the classic radiation pattern, occurs less frequently (Soloman, Lee, Cook, Weisberg, Brand, Rowan, & Golman, 1989). Their symptoms of vague chest discomfort, neck and shoulder pain, diaphoresis, fatigue, blood pressure aberrations, nausea, vomiting and shortness of breath, are commonly mistaken for other illnesses by the

affected women and their physicians (Hendel, 1990; Moser, 1997).

This results in several negative consequences for women. First, women arrive significantly later than men in hospital emergency departments when seeking medical attention (Moss, Wynar, & Golstein, 1969; Turi, Stone, Muller, Parker, Rude, Raabe, Jaffe, & Hartwell, 1986; Weaver, White, Wilcox, Aylward, Morris, Guerci, Ohman, Barbash, Betriu, Sadowski, Topol, & Califf, 1996). Although elderly women's delay times have not been studied directly, elderly men and women have been reported as arriving to the hospital 3.5 to 4.0 hours after experiencing chest pain compared to individuals under 50 years of age, who delayed 0.9 to 1.7 hours (Karlson, Herlitz, Sjolin, Ekwall, Persson, Lindqvist, & Hjalmarson, 1990). Misperceptions about the severity of the symptoms and calling for advice from family and friends, have been identified as causes for the delay (Schmizt & Borsch, 1990). For elderly women, the likelihood of living alone resulting in experiencing symptoms in isolation, has been suggested as a predictor of delay (Moser & Dracup, 1993). This delay, in turn, minimizes the potential benefits women may receive from thrombolytic therapy. Women are also less likely to be admitted to the hospital after going to the emergency department with acute chest pain (Johnson, Goldman, Orav, Zhou, Garcia, Pearson, & Lee, 1996). Physicians attributing atypical symptoms in women to somatic and psychiatric sources, in light of the women's abnormal diagnostic tests, are also a contributing factor (Tobin, Wassertheil-Swoller, Wexter, Skingart, Budner, Leuse, & Wachspress, 1987).

A greater incidence of recurrent angina (Young & Kahana, 1993), reinfarction (Maynard et al., 1993), congestive heart failure (Kimmelstiel & Goldberg, 1990; Pinsky, Jette, Branch, Kannel, & Feinleib, 1990), and stroke (Langer & Criqui, 1993) have been reported in women following a MI. Studies have found that women have a 6% to 25% greater likelihood of mortality following a MI when compared to men (Becker et al., 1994; Tsuyuki, Teo, Iluta, Bay, Greenwood, & Montague, 1994; Puletti, Sanseri, Curione, Erba, & Borgia, 1984). In several studies, this mortality had been attributed to older age in women Dittrich, Gilpin, Nicod, Cali, Henning, & Ross, 1988; Fiebach, Viscoli, & Horwitz, 1990; Maynard, Althouse, Cerqueira, Olsufka, & Kennedy, 1991). In other studies, however, female gender was found to be a significant predictor of short and long term outcomes, even after adjustment for advanced age (Greenland et al., 1991; Puletti et al., 1984).

Diagnosis

Electrocardiograms (ECG), treadmill testing, nuclear imaging studies, and coronary angiography are used in the diagnosis of CHD. But the accuracy of standard noninvasive tests, on the whole, is questionable in women (Wenger, 1993a). The exercise ECG has been found to have a lower sensitivity and specificity for MIs in women (Barolsky, Gilbert, Faringi, Nutter, & Sclant, 1974). One study found that in women with chest pain, the use of exercise tolerance test was a misleading predictor of the presence or absence of coronary disease in 36% of their sample of 205 women (Curzen, Patel, Clarke, Wright, Mulcahy, Sullivan, Holdright, & Fox, 1996). For many older women who are unable to exercise

adequately, because of other illnesses or general deconditioning, the exercise ECG may lead to a false-negative diagnosis of angina pectoris (Bittner, 1994). The use of the exercise echocardiography for the diagnosis of CAD was found to have a lower specificity and a higher sensitivity for women (Roger, Pellikka, Bell, Chow, Bailey, & Seward, 1997). Pharmacological stress perfusion imaging with thallium-201 and pharmacological stress echocardiography are presently being studied as promising alternatives for elderly women, unable to exercise (Eaker, et al., 1993). But one study reported the diagnostic accuracy as being lower for women because of the greater effect of imaging blurring on smaller hearts (Hansen, Crabbe, & Rubin, 1996). In nuclear imaging, diagnostic interpretation has been reported as being complicated by breast artifact (Hsia, 1993).

Angiography, the most accurate in terms of diagnosing the extent of CHD is less likely to be considered for women (Ayanian & Epstein, 1991; Krumholz, Douglas, Lauer, & Pasternak, 1992; Maynard et al., 1992, Steingart, Packer, Coglianese, Gersh, Geltman, Sollano, Katz, Moye et al., 1991; Tobin et al., 1987). Arteriographic data from one study has shown significant coronary artery disease in 23.6 percent of women evaluated with angina-like pain under the age of 50 (Welsh, Proudfit, & Sheldon, 1975). This study is consistent with the literature, by strongly suggesting angiography for elderly women because of their high risk for CHD and the questionable accuracy of noninvasive testing (Wenger, 1993b).

Therapeutic Interventions

For women who have had a MI, therapeutic options include medical therapy and revascularization by either percutaneous transluminal coronary (PTCA) or coronary artery bypass grafting (CABG). Even though it has been established that women have higher mortality rates following a MI, they receive significantly less of all proven therapies (Ayanian & Epstein, 1991; Eysmann & Douglas, 1993; Jagal, Goel, & Naylor, 1994; Krumholz et al., 1992; Kudenchuk et al., 1996; Majeed & Cook, 1996; Tobin et al.,1987).

Women are less likely to receive medical therapy following a MI (Clarke, Gray, Keating, & Hampton, 1994; Tsuyuki et al., 1994). There have been very few studies on women's responses to common cardiovascular drugs (Gurwitz, Col, & Avorn, 1992). The reasons offered for the exclusion of women as subjects of clinical studies have been the complexity of female hormonal fluctuations (pregnancy and menstrual cycles were viewed as confounding variables), the protective cardiovascular effects of endogenous estrogens in premenopausal women, and decreased statistical power, that is, in the studies of diseases that have lower rates of occurrence in women than seen in men (Levey, 1991). That elderly women are at a considerable risk for age and gender differences in response to drugs, has been acknowledged in the literature for some time.

Women are less likely to receive thrombolytic therapy (Adams, Jamieson, Rawles, Trent, & Jennings, 1995; Green & Ruffin, 1993; Maynard et al., 1991). Barriers such as time delays in arriving at the hospital, age, pregnacy, and menstruation have been cited as preventing women from access to thrombolytic

therapy (Pickett, 1993). Elderly women in the 65 to 75 year age group have been documented as receiving the greatest benefit from thrombolytic therapy (Topol & Califf, 1992). But complications, including serious bleeding, congestive heart failure, reinfarction, occurrence of strokes, a doubling of mortality have been found to be more common in women receiving this therapy when compared to men (Weaver et al.,1996). Incorrect dosage has been cited in the literature as contributing to the complications experiencing in the older age group (Topol & Califf, 1992; Eaker et al., 1993).

PTCA initially produced lower success rates, higher operative and hospital mortality, and increased complications for women (Kelsey, James, Holubkov, Crowley, & Detre, 1993). This was attributed to women being older, hypertensive, and with severe and unstable angina, undergoing the procedure. Currently because of improved technology, PTCA outcomes for women have improved (Bell, Grill, Garratt, Berger, Gersh, & Holmes, 1995). This has also been reported for the elderly, over the age of 80 years (Krumholz, Forman, Kuntz, Baim, & Wei, 1993).

Women are referred for CABG surgery at at later stage in their disease than men, which subjects them to an increased operative risk, resulting in a higher mortality (Bidcell, Pieper, Lee, Mark, Glower, Pryon, & Califf, 1992; Ennabli & Pelletier, 1986; Khan, Nessim, Gray, Czer, Chaux, & Matloff, 1990; Krumholz et al., 1992). The documented increase in morbidity and mortality has been cited in the literature, as being influenced by the fact that women undergoing surgery,

were older and have a high prevalence of congestive heart failure, systemic hypertension, and unstable angina (Eaker et al., 1993). CABG surgery has been shown to be beneficial to elderly women for long term survival (Jeffery, Vijayanagar, Bognolo, & Eckstein, 1986). But women have less favorable outcomes in relief of symptoms (Murdaugh & O'Rourke, 1988), graft patency, perioperative infarction, and physical activity level (Penchofer & Holm, 1990). Elderly women's perceptions of their recovery of health are also lower than those of men, at 1 month and again at 1 year following surgery (Gortner, Jaeger, Harr, & Hlatky, 1994).

The question of gender bias, in regards to women, and their likelihood of surgical referral have been reported for cardiac transplantation (Aaronson, Schwartz, Goin, & Mancini, 1995). One explanation as to why fewer women undergo this procedure suggests that differences exist between gender preferences toward aggressive technological intervention (Randall, 1993). One study suggested that men approach their physicians with a "fix it" attitude, whereas women view heart disease as something to which they must adapt (Travis, Gressley, & Phillippi, 1993). Women may be more willing to make lifestyle changes and try less dramatic therapies. The findings that women refused, at a much higher rate than men, needs to be investigated further in order for an understanding of how this factor influences women's health choices. Even though the number of women undergoing transplantation has been small, an increased early mortality has been reported (Wechsler, Giardina, Sciacca, Rose, & Barr, 1995).

Psychosocial Responses

The event of a MI can have a profound effect on the psychological status of the individual, which in turn affects their recovery. The psychological responses to a MI have been well documented in the literature. Not surprisingly, women comprise only a small percentage of the subjects in studies of psychosocial responses to heart disease. Age differentiation and the context in which these responses occur are frequently not described in any detail. The studies that have been done suggest that women experience: more loss of function in terms of work, activity, and sexuality than men; more anxiety and depression than their male counterparts; and are less likely to attend rehabilitation programs. This suggests that the recovery course for women is quite different from that of men.

Reports of returning to work are lower in women, when compared to men following a MI (Chirikos & Nickel, 1984; Shanfield, 1990). Reasons for the reduced return to work in women are attributed to the older age at which CHD occurs, the severity of CHD, psychosocial variables, and economic status limitation and more cardiac symptoms (Low, 1993). A variety of explanations have appeared in the literature, ranging from women's greater willingness to report symptoms, to a greater sensitivity to physical sensations (Verbrugge, 1982). But given the evidence that women have more serious disease, the reporting of more symptoms probably reflects their disease severity, which in turn impacts on their ability to return to paid work.

In terms of unpaid work, women take on housekeeping duties as early as

one to four weeks following their hospital discharge, with the perception that it was not an activity that was excessive (Boogaard, 1984; Hamilton & Seidman, 1993; Johnson & Morse, 1990). Guilt was a feeling identified by women when they were unable to return to their usual household activities. Women, whether middle-aged or elderly, tried to minimize disruption to their family's functioning (Varvaro, 1993). They resisted being helped, feeling selfish for putting their own health before their family (Boogaard, 1984). Attempts by their children to provide comfort led women to minimize their symptoms and appear less ill in order to protect their mothering roles (Johnson & Morse, 1990). Elderly women were reported in one study as experiencing stress in regards to managing household responsibilities (Sharpe, Clark, & Janz, 1991). Even for elderly women who have had heart disease for a number of years, household activities and experiencing symptoms were perceived as being the greatest stressors (Friedman, 1993).

Women are more fearful about resuming sexual activity and experience more cardiac symptoms during sexual activity than men (Hamilton & Seidman, 1993) resulting in the nonresumption or decreased levels of sexual activity (Baggs & Karch, 1987; Hamilton & Seidman, 1993). The researchers of one study suggests this is due to the assumption that health care providers make regarding older women and their disinterest in sex activity (Baggs & Karch, 1987). The knowledge levels and attitudes of health care professionals toward counseling elderly women, about the resumption of sexual activity, has not been studied. But more importantly, there is a need for research which examines the resumption of

sexual activity following a MI, from the perspective of elderly women.

Women have been reported to experience greater emotional distress (Mackenzie, 1993), anxiety (Wiklund, Herlitz, Johansson, Bengtson, Karlson, & Perrson, 1993) and depression (Mickus, 1986; Stern, Pascale, & Ackerman, 1977; Murdaugh, 1990) than men after a myocardial infarction. One study indicated that women were less able to articulate reasons for their anxiety or depression (Boogaard, 1984). Middle aged women, when compared to elderly women, were found to have emotional concerns which resulted in more difficulties in following a MI (Varvaro, 1993). The support women receive following a MI influences their self-esteem and quality of life ultimately affecting their survival (Wingate, 1995). One study examining elderly women (+70) following a MI found that they were less likely to have a spouse to act as a primary caregiver, which resulted in a more than two fold increase in their risk of death (Young & Kahana, 1993). Another study found that when tangible support came from family, older women felt more secure and satisifed with life (Friedman, 1993).

Cardiac Rehabilitation

One study has examined the efforts of women (aged 43 to 77 years), to make lifestyle changes to reduce their coronary risk factors, after they have been diagnosed with CHD (Thomas, 1994). Multiple role expectations limited the amount of time that middle aged women could devote to regular physical activity. Elderly women who no longer had children at home experienced internal conflict when implementing necessary changes, because they continued to put the needs of their husbands before their own. Lack of specific information, regarding diet

and exercise, were also noted as obstacles for these women.

Studies describing women in cardiac rehabilitation programs are quite limited. However, the studies that do exist indicate women have lower participation and higher dropout rates in formal rehabilitation programs than observed in men, despite the same improvement in functional capacity (Cannistra, Balady, O'Malley, Weiner, & Ryan, 1992; O'Callaghan, Teo, O'Riordan, Webb, Dolphin, & Horgan, 1984). One study examined the qualitative aspects of exercise rehabilitation with women and found that physical conditioning enabled them to carry out their activites of daily living with greater self assurance and fewer problems (Oldridge, La Salle, & Jones, 1980). Only one study examined older women (+ 62 years) and attributed their small numbers in cardiac rehabilitation programs to a lesser likelihood of being referred by their primary physicians (Ades, Walsman, Polk, & Coflesky, 1992). Elderly women obtain the same benefits from exercise, as the men, despite being less fit on entry into the program (Balady, Jette, Scheer, & Downing, 1996). To date, the elderly women's perspective of the cardiac rehabilitation experience has been poor. In one study of women's rehabilitation experience, a lack of specific information regarding diet and exercise was documented (Thomas, 1994). We can only postulate that their greater symptomology (Low, 1993), psychological sequelae (Stern et al., 1977; Parchert & Creason, 1989; Schuster, & Waldron, 1991), lesser likelihood of receiving counseling (Hamilton & Seideman, 1993), and the absence of social support (Berkman, Leo-Summers, & Horwitz, 1992) are factors which influence

elderly women's participation in cardiac rehabilitation programs.

Summary

Women experience more life changes than men as a result of their MI. Increased marital and social difficulty has been reported in several studies. In one study, women attributed their second MI to marital problems (Low, Thorsen, Pattillo, & Fleischmann, 1993). In comparison to men, women are found to be feeling more inadequate, apathetic, and isolated (Stern, Pascale, & Mcloone, 1977). These negative psychosocial outcomes undoubtedly affect their morbidity and mortality. But not all psychological responses to a MI are necessarily negative. Unfortunately, no studies have been done with women to examine the reassesssment of their values, life goals, and personal growth (Taylor & Berra, 1993).

The perceptions of elderly women with CHD was examined in one study by utilizing instruments to gather data on perceived family, psychological, physiological functioning, and life satisfaction (Varvaro, 1993). The 75 women in the sample had experienced either angina, a MI, or CABG surgery within one year of the study. The researcher compared post coronary perceptions in middle aged (<65 years) and older women (>65 years), concluding that elderly women have significantly different perceptions regarding increased pride and accord, less perceived problems with post heart adaptation, less emotional concerns, more health adaptive behaviors, and higher perceived life satisfaction. These findings should be viewed with caution as the researcher does not acknowledge that angina, a MI, or CABG surgery, represent different experiences

of CHD and thus evoke different perceptions.

Despite CHD being the major cause of morbidity and mortality in elderly women and available research suggesting a greater impact physically and psychologically, there has been a lack of research that focuses on what elderly women experience as a result of having a MI. Sex and age bias has been cited in the literature as reasons for the occurrence of the limited research. This has led to inequality and disadvantage for elderly women who have CHD and their subsequent treatment. Research must therefore focus on the perceptions of elderly women, who have had a MI, in order to develop an understanding of how CHD affects older women.

CHAPTER THREE

Method

The purpose of this study was to explore and describe the elderly woman's (70+ years) perceptions of having a myocardial infarction (MI). The method selected for this investigation will first be explicated. The processes of sampling, data collection, and data analysis are then described.

Design

An exploratory qualitative approach was used as a means to answer the research question: What are the older woman's perceptions of having a myocardial infarction? The object of qualitative research is to discover the emic perspective, that is, the real experience of the situation from the point of view of the person experiencing it. Because there is a lack of research reported in the literature regarding the older woman's perceptions following a MI, an exploratory study using qualitative method was used.

Exploring the experience and discovering what is important to elderly women who have had a myocardial infarction led to generating a grounded theory (Miles & Huberman, 1994). Processes were examined using inductive and deductive reasoning, in a systematic way. By way of comparative analysis, constructs and concepts that emerged from the data were tested as they emerged. This approach allowed for flexibility that is required in an exploratory qualitative study to gain an understanding of what the elderly women experienced following a myocardial infarction. The results of this study are a description of the women's behavioral variation which led to a process of "***living with change***".

Sample

For the purpose of this study, the informants were selected by a non-probability, purposive sampling method. The informants were selected from the University of Alberta Hospital and Royal Alexandra Hospital. Inclusion criteria for this study were women: 1) aged 70 years or older; 2) had experienced a first MI; 3) were eight weeks post-MI and have not received coronary artery by-pass surgery; 4) had the ability to speak and read English; 5) are cognitively able to reflect on and verbalize their perceptions and experiences related to their MI; and 6) resided within the city of Edmonton. The sample was comprised of eleven elderly women. Their ages represented three stages of the aging continuum, for two women were in the 65-74 year old age group (young-old), eight women were in the 75-84 year old age group (middle-old) and one was 85 years of age (old-old). Each informant participated in face-to-face interviews. Telephone follow-up was done to clarify with the women any unclear aspects of the interviews.

The access to the sample was obtained in the following manner: the Cardiology Patient Teaching Nurse called the researcher with the names, addresses and phone numbers of women with whom she had approached and had expressed interest in the study. The resesarcher contacted potential informants, giving them a brief explanation of the study, their time commitment, and role prior to discharge from the hospital (Appendix A). The fifteen initial women who verbally expressed interest in the study were then contacted by phone, following an eight week period, to arrange an interview time. Once home, three women

refused to participate, citing poor health, and feeling uncomfortable with being interviewed and one woman underwent coronary artery bypass surgery shortly following her MI. This resulted in 11 women who consented to participate in the study. The inclusion of a variety of experiences following a MI was identified as important, therefore the women who encountered complications such as a prolonged stay in the coronary care unit (CCU), spontaneous internal hemorraging, and re-infarcts were interviewed at a later date. Sampling continued until the categories identified through the data analysis were saturated and no new information was being identified (Field & Morse,1985).

Data Collection

The primary method of data collection was in-depth interviews. Prior to the start of the interview, an explanation of the study was presented with an opportunity for the women to ask the researcher questions. A written informed consent (Appendix B) was obtained from each informant. The researcher did not administer the Short Portable Mental Status Questionaire (SPMSQ) (Pfeiffer, 1975) (Appendix C) on any of the women as they did not, during the course of the interview, exhibit signs of deficits in their cognitive functioning. Demographic information (Appendix D), Basic Activities of Daily Living (ADLs) (Katz, Downs, Cash & Gortz, 1970) (Appendix E), Instrumental Activities of Daily Living Scale (IADLS) (Lawton & Brody, 1969) (Appendix F), and the New York Heart Association Classification (NYHA) (Criteria Committee of the New York Heart Association, 1964) (Appendix G) were obtained.

The interviews took place in the homes of the women and took from forty-five to sixty minutes. Two women insisted their husbands be present during the interview. Although this turn of events initially concerned the researcher, the men added an interesting perspective to their wives experience. Guiding questions (Appendix H) were asked during the thirteen interviews. The questions focused the interviews on obtaining the elderly women's responses related to their perception of having a MI. The descriptions of their experience began with the onset of the MI, entry into the hospital, and continued through the recovery period. As the interviews progressed, questions were added which allowed the researcher to intentionally pursue aspects of the MI experience which had been lacking in detail or clarity in the data generated from previous interviews with informants.

The majority of the interviews were tape recorded. Two women requested that the tape recorder be turned off at one point during their interviews. One woman was concerned about the confidential nature of an aspect of her experience and the other informant was unable to continue because she was experiencing chest pain. One informant refused to be taped as her European accent caused her embarrassment. In these incidences, in depth field notes were used as data.

Following the interviews, notes were made by the researcher in a field diary. Observations regarding the nonverbal communication of the informants and the impressions and contexts of the interviews were noted. This supplemented the interview data and was analyzed in conjunction with the transcribed data. A

research journal was kept by the researcher, where personal biases and assumptions were identified. Also included in this journal are thought processes and ideas that occurred during the study.

Data Analysis

Descriptive statistics were used to describe the sample characteristics from the demographic data collected. The tape recorded interviews once transcribed, were reviewed by the researcher for accuracy. Content analysis was performed on the data collected throughout the interview process. The emerging themes expressed by the informants, were grouped into categories and labelled by codes. The seven guiding interview questions were viewed as the beginning of this process, as the questions were clustered around general aspects of the MI experience the researcher explored with the informants. Interview data, once coded by the researcher, were verified by the thesis supervisor. Data collection and analysis proceeded concurrently. The emerging categories and themes initially generated were validated in telephone interviews.

Field notes were also used in the data analysis. The researcher made notes after each interview, in order to document the occurrences during the interview, which did not lend themselves to interpretation from audiotapes (for example: general mood of the informant, nonverbal behaviour, description of the surroundings and speculations or concerns the researcher had). Contact summary sheets were done several days following each interview. This enabled the researcher to identify and focus on the main incidents, issues, themes, and

questions which came out of the interview with the informant (Miles & Huberman, 1994).

Following descriptive codes, pattern coding of the data was done by the researcher. The researcher was seeking to identify and possibly explain emerging patterns, in the events and relationships described by the women. This reduced the number of descriptive codes into a grouping of themes. Previous interview data were reviewed periodically, so that inferential coding could be applied to the material analyzed earlier in the process. Adequacy of data was decided upon when the information that was collected was repetitive, that is, it fit easily into existing categories which contained many examples. At that time data collection was discontinued. In time during the data analysis, as many categories arose, overlapping was addressed. By looking closely at the women's descriptions, some of the categories were collapsed into single broad categories containing various subcategories.

Memoing, the third component of analysis, was done by the researcher in order to record her thoughts on possible hypotheses, links, and interpretations seen in the data. More comprehensive categories were sought, as the researcher worked towards a more integrated understanding of events, processes and interactions (Miles & Huberman, 1994). Diagramming enabled the researcher to obtain an overview of the categories and linkages as they emerged. By visually representing the analytic scheme, the researcher was able to examine the emerging theory as a whole.

Reliability and Validity

The quality of a study and its findings are determined by how the researcher has addressed the issues of reliability and validity within the study. Qualitative research, because of its differing approach and goal, has different questions of concern. Several methods were used to establish reliability and validity in this study.

Reliability is concerned with consistency and repeatability of the informants accounts, as well as the researcher's ability to collect and record the data accurately (Brink, 1991, p. 176). The reliability of the responses between informants was established by the researcher asking the informants the same interview questions and by analyzing their responses, seeking commonalities. The data analysis done by the researcher was reviewed by the thesis supervisor. This ensured that the subjects were consistent in their accounts and that the researcher had interpreted the emerging themes appropriately.

The reliability of the researcher was established by the thorough and accurate documenting of the research process. This facilitated the monitoring of the researcher's thinking, decision making, and implementation of the research method by the thesis supervisor. The research process was documented through the use of audio tapes, field notes, memos, and the researcher's journal. The researcher's journal included personal feelings which led to the identification of biases that had the potential to interfere with the research process. Consultation with the thesis supervisor during data analysis verified the categories and codes which emerged. The transcriptions and tapes of

the interviews will be kept so that, if questioned, the study's findings can be verified and confirmed by other researchers. The conclusions of the study were reviewed by the members of the thesis committee ensuring its logical progression. In the final report, the use of the women's quotations served to substantiate the analysis of the data.

Validity entails the researcher ensuring that the data generated is truly representative of the experience under study. The methods which were used to establish validity in this study are as follows: purposive sampling, verifying of the data by the subjects, and ensuring data accuracy. Purposeful sampling assured that the informants represented the three age groups of the elderly and were knowledgeable about the topic being investigated by virtue of their experiences with specific events (Morse, 1989). The researcher telephoned the women in the study with a summary of the categories to confirm that it was an accurate representation of what they have said. Having shared the findings with a number of informants, the researcher established that the findings were relevant.

The interviewing techniques were reviewed by the thesis supervisor. This ensured the manner, in which the researcher interviewed, did not interfere or curtail the women's sharing of their experiences. One anticipated problem did arise at the beginning of the interviews. Because the researcher identified herself as a nurse, the women tended to focus on the medical aspects of their MI. But over the course of the interviews, the women did share their personal perspective of this experience.

Ethical Considerations

Informed Consent

Elderly women who had been hospitalized at the University of Alberta Hospital and Royal Alexandra Hospital for a MI were contacted by telephone following their hospital discharge by the researcher. By contacting the women once home, the women did not feel coerced, for fear of receiving poor care in the future if they refused to participate. The purpose of the study, the extent of their participation required, risks and benefits were explained to each informant at the time of the inital telephone contact (Appendix A). This was repeated prior to the first interview. Any outstanding questions were answered by the researcher, before obtaining an informed consent (Appendix B) from the potential informant. The woman retained a copy of the consent and information letter. The consent addressed the withdrawal of the participant from the study at any time without reprisal.

Confidentiality

Any identifying information on the transcriptions and fieldnotes were deleted. Code numbers replaced the informant's names, which were only known to the researcher. Interview tapes, transcription, and field notes were kept in a locked filing cabinet. The code sheets with identifying data: names, addresses, and telephone numbers were kept in a locked cabinet in another area. The participants were informed of these precautions (Appendix B) to keep their responses confidential. This helped to allay any misgivings or fears the women had in disclosing their personal experiences. Information known to the researcher

was held in strict confidence.

The identity of the informant was only known to the researcher. Their involvement in the study was not shared with others. Numerical codes appeared on the transcripts which may be used in the future for education, publication, and research purposes. In the final report, when the words of an informant were used, a pseudonym was inserted.

Risks and Benefits

There were several perceived risks to the informants which the researcher had anticipated. One woman fatigued easily which necessitated several shorter interviews so that she could complete the account of her experience. None of the informants became upset when recalling their experiences. Nor were any of the women found to be depressed. Had this not been the case, the appropriate health agency would have been notified following consultation with the woman.

There were no perceived benefits to the informants. However, several participants found it helpful to talk to the researcher about their experiences. Participation in this study may benefit other elderly women who will have a MI in the future by developing an understanding of their experiences. Nurses will be in a better position to participate with elderly women.

Ethical clearance was obtained from the Faculty of Nursing, University of Alberta and the Special Services Rearch Committee, University Hospital.

CHAPTER FOUR

Findings

The purpose of this study was to describe the experience of having a myocardial infarction (MI) from the emic perspective of elderly women. The findings that elucidate the process following a MI, as experienced by the women in this study, are presented. First, selected demographic characteristics and information about the women who participated in this study are described. Following this discussion, the five phases of the process, including the themes characterizing the different challenges faced by the women, and the strategies they used to overcome these challenges, are explicated.

Informants of the Study

There were 11 informants included in this study. They have been given pseudonyms and will be referred to by assigned names to protect their identities.

Ruth is 83 years old. She was a University Professor for many years. She is widowed, has two children, and lives alone in a downtown condominum apartment. Her daughter lives in the city. She has had a conservative lifestyle and had been healthy previous to her MI. She was on medication for hypertension and didn't start smoking until later in life. She had an extended stay in the hospital due to the severity of her MI. She was intubated and in the coronary care unit (CCU) for several weeks. She then developed heart failure after her MI. She was transferred to a sub-acute facility for further recouperation. Her daughter, with whom she is very close, stayed with Ruth for a period of time once she was discharged. Due to the functional changes Ruth had experienced as a result of her

MI, she has yet to fully recover. She regards her cardiac disease as causing a slight limitation of physical activity.

Betty is 70 years old. She lives with her husband in their own home on a large property. She has a high school education. She had been an office manager in an accounting firm. The two children she and her husband raised, live in nearby large urban centres. She has generally been healthy in the past except for breast cancer, which resulted in her having a mastectomy 14 years ago. She had smoked up to her MI. Her hospital stay was one week long and uneventful. She had a coronary angioplasty during her hospitalization. Her husband is very supportive and insightful as he had a MI some years ago. Betty has returned to her previous level of functioning and views her cardiac disease as limiting her only minimally.

Eileen is 79 years old. She had done some clerical work outside the home and pursued a career as an artist. She is married with two children. She lives in a single family dwelling. She has a college education. She has generally been healthy except for breast cancer 40 years ago, which resulted in her having a radical mastectomy. Following her MI, she had a coronary angioplasty. Several months after her hospital discharge, her symptoms worsened. During her second hospitalization for a repeat coronary angiogram, she hemorraged at the femoral sheath insertion site. This hospitalization lasted three weeks and she left the hospital without having the required coronary angioplasty, due to the cardiac catheterization rooms being temporarily closed. Shortly thereafter, Eileen

returned with angina and subsequently had her second coronary angioplasty. The effects were short lived, as she returned to the hospital with unstable angina a few days later. She presently is unable to resume her normal activites and frequently experiences angina. As her condition is deteriorating, Eileen is anticipating coronary artery bypass surgery in the future. Her cardiac disease causes Eileen discomfort when she attempts any physical activity.

Shirley is 76 years old. She has been divorced for ten years. Her husband and daughter live in the same city. She has a very close relationship with her daughter and is involved in many activities in her church. She was a physiotherapist for many years and travelled extensively in her career. She lives alone in a small single family dwelling. She experienced relatively good health prior to her MI. She had smoked moderately. Her progress during hospitalization was uneventful. In light of her favorable condition, she was discharged early due to a shortage of beds. She reinfarcted a week later and underwent a coronary angioplasty shortly thereafter.Shirley has been able to resume her previous activities and feels having a MI has caused her only a slight restriction in physical activity.

Irma is 79 years old. She is widowed and lives alone in a single family dwelling. Her only living child lives nearby. She has a very strong family and social network. She has been a homemaker, but also worked regularly outside the home in unskilled jobs. She presently works part time in a seniors center. She had a brief and unremarkable hospitalization. Irma has managed to return to her past activities and feels her physical activity has been only slightly curtailed.

Rose is 80 years old. She is widowed and lives in an apartment in a seniors complex. She has three children (one lives in the city with her family). She has a very strong family network. She has a high school education and worked in clerical positions. She volunteers weekly assisting learning disabled children to read. She had experienced very few health problems in the past. Rose's hospitalization progressed uneventfully. She was discharged home and recovered fully. Her only residual effect is being short of breath with greater than normal physical activity.

Evelyn is 83 years old. She is married and lives in a downtown apartment. She has a university education and worked professionally outside the home for a period of time. She has 4 children. She has a very strong family and social network. She feels she has had her share of good health in the past. During her hospitalization, she experienced an episode of delirium which she attributed to the medications. Although Evelyn views her cardiac disease as slightly limiting her activity, she admits to being more conservative physically since her MI.

Pearl is 82 years old. She is married and has two children. She has a very supportive family network. She has a university education, but only worked in her later years in a clerical capacity. She has had osteoarthritis and high blood pressure (controlled by medication) for many years. She lives in a single family dwelling. During her hospitalization she had a coronary angiogram. Her time in the hospital was longer due to a spontaneous internal hemmorrage, which she attributes to anticoagulants. The first two months of her recovery were filled with

pain and frequent visits to the house from her family doctor and Home Care nurses. Her recovery was progressing well until another unrelated health problem (gout) arose. She now regularly uses a cane and does not shop unaccompanied. Pearl feels her cardiac disease has not resulted in any limitations at her present physical activity level.

Yvette is 85 years old. She is widowed. She has one child. She has a very helpful and supportive family. She has a grade 8 education. She worked in unskilled jobs most of her life. She lives in an apartment in a large complex in close proximity to her daughter. She has had osteoarthritis for many years. Her hospital stay was uneventful. She recouperated at home without any complications. Yvette has been able to resume her previous lifestyle and feels her MI has caused her only slight restrictions in physical activity.

Anna is 71 years old. She has a grade 9 education. She has been widowed for many years. She raised three children and lives with her daughter and her family in a large single family dwelling. She has a very strong family and social network. She managed the family business for many years. She is very involved in church activities. She has a history of osteoarthritis. She feels her smoking, high cholestrol, and being overweight contributed to her having a MI. She was in heart failure upon admission to hospital. She had a coronary angiogram during her uneventful hospitalization. She experienced several episodes of arrhythmias during her recovery period at home, resulting in several visits to the emergency department. As she has decided not to resume her previous tasks (associated with that of homemaker), she regards her cardiac

disease as slightly limiting her present activity level.

Helen is 83 years old. She is married and lives in a fourplex unit. She has one daughter who lives in another city. She has a junior high school education. She worked in retail sales most of her life. She was in heart failure upon admission to hospital. She had a coronary angiogram during her uneventful hospitalization. Since her discharge, she has experienced one episode of angina which resulted in her staying in the emergency department for a short period of time. Her husband has a long history of cardiac disease. Although Helen has resumed her previous activities, she experiences shortness of breath when carrying objects or climbing stairs.

To summarize, the age range of the women participating in the study was 70 to 85 years, with an even distribution being in the seventh and eighth decade of their lives. Six women were married at the time of their MI, four were widowed, and one was divorced. Two women worked part-time prior to their MI. The women were of middle class status, with more than a half (n=6) having worked in a professional capacity. The married women acknowledged husbands as their primary support system whereas all the widows identified daughters. The living arrangements of the sample were as follows: five of the women lived in their own houses, five lived in rented accomodations (apartment, townhouse), and one lived with her daughter and family.

Measurement of the women's functional ability (IADL) (Appendix F) resulted in scores which ranged from five to eight. Following the MI, two-thirds

(n=7) of the women were independent in their ability to carry out activities of daily living (score of 8). For the other women, they were unable to shop alone and their means of transportation was now limited to taxi or car with the assistance of another (score of 6). The woman with the lowest score on the IADL (score of 5), also required assistance to prepare meals, and was unable to carry laundry. This was a reflection of her poor state of health.

In regards to their ability to carry out basic activities of daily living (ADL) (Appendix E), the majority of the women (n=9) were fully independent (score of 6). The women who had deficits in their functional ability also scored lower (score of 5) on the ADL. One woman needed bathing assistance due to her unstable angina, and another woman experienced bladder incontinence.

Nine of the women had a rating of Class II on the New York Heart Association Classification (Appendix G), meaning their heart disease slightly limited their physical activity. Their performance of ordinary, light physical activities was not affected, but heavy physical exertion would result in fatigue, palpitations, dyspnea, or angina. One woman was rated as not being limited physically (Class I), whereas the other woman who had consistently scored the lowest on the other measures, was rated as Class IV. This score reflected an inability to carry on any physical activity without discomfort. A summary of the informant characteristics is located in Table 1.

The Process of Having a Myocardial Infarction

The experience of having a MI from the emic perspective of elderly women was described as a process (Figure 1). The phases of this process were

Table 1

Characteristics of Study Informants

	Characteristics					
Informant	Age	Marital Status	No. of Wks. Post-MI	IADL Score	ADL Score	NYHA Score
1	83	W	13	6	5	2
2	79	M	25	8	6	2
3	70	M	15	5	5	4
4	76	D	16	8	6	2
5	79	W	16	8	6	2
6	80	W	13	8	6	2
7	83	M	9	6	6	2
8	82	M	12	6	6	1
9	85	M	12	8	6	2
10	71	W	12	8	6	2
11	83	M	8	8	6	2

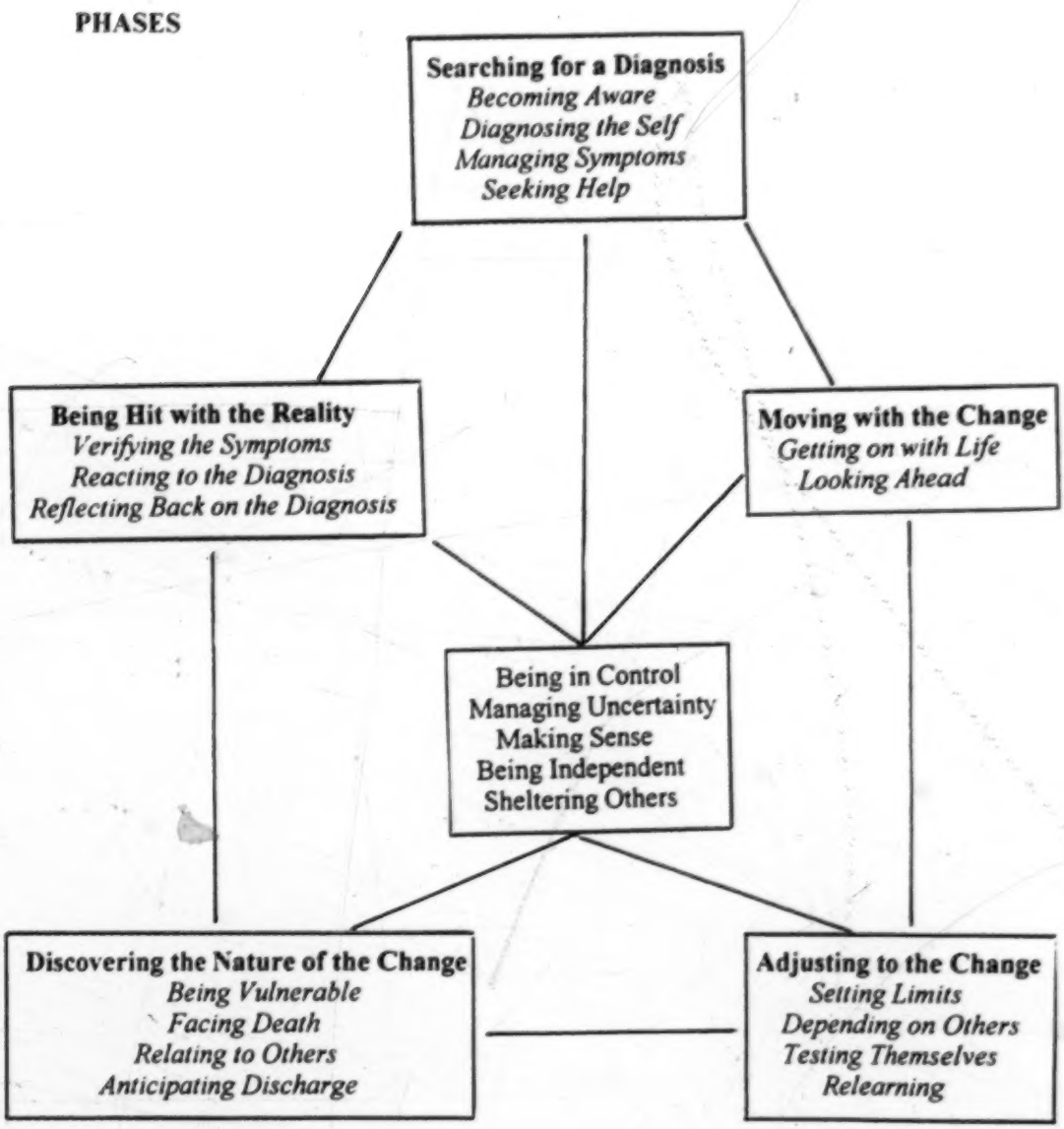
M-Married, D-Divorced, W-Widowed
IADL-Independent Activities of Daily Living, ADL-Activities of Daily Living
NYHA-New York Heart Association Classification

identified through the constant comparative method of qualitative research Miles & Huberman,1994). They are as follows: **searching for a diagnosis, being hit with the reality, discovering the nature of the change, adjusting to the change and moving on with the change** (Figure 1). As the women progressed through these phases, factors such as the severity of the MI, and the presence and quality of family and social support, were identified as impacting on this progression.

Although the phases are discussed in a linear manner, not all of the informants moved through the phases sequentially, nor did they complete this process. For example, the women who experienced a reccurrence of symptoms, began the process again. Thus, the process was cyclical in nature. Due to the unresolved nature of their condition, several women experienced "being on hold", and were unable to "move on with change".

Throughout the five phases, certain themes became evident. The women were faced with the challenges of "being in control", "managing uncertainty","making sense","being independent" and "sheltering others". Although these challenges were consistently present, their nature and significance changed throughout the various phases. For example, the women throughout this process fought to maintain control over their lives. In the first phase, searching for a diagnosis, the informants attempted to maintain control over their bodies.

Figure 1 . Living with the Change of a Myocardial Infarction



During the second phase, the women struggled cognitively with coming to terms with the diagnosis. In the next phase, the informants struggled with a perceived loss of control during hospitalization. During the adjusting phase, the women worked towards re-establishing a sense of control over their lives. When the informants progressed to the final stage, a sense of personal control over their lives was re-established.

In human experience there is usually a core variable that explains the meaning of the data (Glaser, 1978). It has essentially three fundamental characteristics: it occurs frequently, it links and explains the variation of the data (Hutchinson, 1986). The core variable which explains the variation in behavior evident over time for these women was ***living with change***.

Living with Change

From "*becoming aware*" of symptoms to the final phase of "*moving on with the change*", the women struggled with the change caused by their MI. The continuous process of change in their lives was taken for granted by these women. They had sucessfully coped with and adapted to many changes previously in their lives. But the experience of a MI was new to them. As they progressed through the phases, they overcame new challenges by using a variety of strategies. They were survivors.

In the inital phase, **searching for a diagnosis**, the informants became aware a change had taken place within their bodies. They attempted to diagnose the symptoms or identify the source of the change which had taken place. Once

they related their symptoms to a specific condition, they tried an appropriate remedy. As their symptoms worsened, they became frustrated over their lack of ability to control the change. It became increasingly difficult for the women as their energy was drained in attempting to manage the change. The reality that a change in their health was taking place had been acknowledged by the time the women sought medical attention.

In the next phase, **being hit with the reality**, the women sought to have a reason for the change in their health identified. Once a MI has been verified by healthcare professionals, the women struggled with the reality of the diagnosis. The women reacted initially by detaching themselves from the events which are taking place in the emergency department. Denying the nature of the change was evident in others. The informants reflected on plausible related symptoms and their health history in an attempt to develop an understanding of the change within the context of their lives. Developing a perspective of the change was necessary for the women to regain a sense of control in their lives. Anger, resentment, and bargaining was experienced by several women in their accepting of the change which had taken place.

The next phase of this process was **discovering the nature of the change**. It encompassed the women's experience once in the hospital. Diagnostic tests were performed to ascertain the severity of their MI. The women faced a variety of treatments admist their unfamiliar environment. This resulted in the women feeling out of control, uncertain, and powerless. Several experienced a loss of identity. The change within their bodies continued to be the focus in this phase, as

the women learned about it's nature and began treatment. The discharge teaching the informants received translated the change. The change they experienced now had implications for the women, in terms of how they live their everyday lives.

In the **adjusting to the change**, the women continued to develop an understanding of the change. This allowed them to continue in their adjustment process. Once home, they realized that they did not have the energy to produce the requested changes in their lifestyles. Day to day survival was what was important for these women. It was not whether the house work would be done, but how it would be done. They tested themselves on their abilities to resume their previous activities. They were neither depressed nor angry about the changes they had to make in their lives. They were ready to do whatever was necessary in order to move on with their lives. They then began to focus their energies on what the health care professionals recommended. They regained a sense of control over their lives and their uncertainty was diminished.

In **moving on with the change**, the women accepted the change on a personal level. They realistically evaluated their futures in light of the change. They began to take action on their decisions and reprioritized their lives. The future became clearer and they had a sense of direction which was not present at any other time. They believed they could change.

In the following sections, the five phases of the process of ***living with the change*** of a myocardial infarction, as experienced by elderly women will be presented. The challenges, strategies, and responses which are characteristic of

each phase, will be discussed.

Searching for a Diagnosis

Searching for a diagnosis begins when the informants became aware of experiencing symptoms or feeling different. This change in their health status ultimately led to their seeking attention. This period of time which extended from four hours to three days, was marked by the women trying to make sense of their symptoms and the subsequent growing of uncertainty as their symptoms continued to progress despite their attempts to remedy them. The women were struggling to maintain control over their bodies. Very little if any advice, on diagnosing or managing their symptoms was solicited from family or friends. This appears to be sheltering on the part of the women, so as not to worry their loved ones. As their symptoms worsened, the women were unable to understand what was happening within their bodies. This resulted in a sense of losing control. They had failed to ascertain the cause of their symptoms. The women were dependent upon others as they sought the advice initially, of close family members, and later of health care professionals. Throughout this phase, the informants were forced to acknowledge the reality of a change in their health.

Becoming aware. Although there was some variation in the nature and the severity of their symptoms, all the women experienced a sudden and unexpected onset. For some, the symptoms were nonspecific and fluctuated in severity. The most commonly experienced symptoms described by the informants were as follows: dyspepsia, chest pressure, sternal pain, diaphoresis, and dyspnea. Two of the women identified mandibular discomfort, which was something they

had not felt before. For those whose symptoms escalated rapidly, medical help was quickly sought.

> "I woke up in the middle of the night, with something I've never felt before...it didn't seem to improve, I felt as though I had a heavy bar going across my clavicles. It was an extraordinary aching that might be associated in one's mind with indigestion. It was localized. It didn't get better and I was sweating profusely. Then I began to feel very light headed". (Shirley)

Diagnosing the self. Once a change in their health status had been recognized by the women, they proceeded to try to make sense of the symptoms and identify the problem. They compared their symptoms to past experiences with illness in their search for the cause of their symptoms. They arrived at a seemingly appropriate cause when they were able to match what they were presently feeling to previously similiar experienced symptoms. Three of the women were unable to relate their symptoms to past experiences.

> "I just didn't know, just felt uncomfortable. You don't look for problems...But I didn't feel right. Ahh, I didn't know what was wrong, I just thought it was a cold miserable day and that's why I felt that way". (Pearl)

Indigestion was by far the most commonly attributed source of their discomfort.

> "Wah! Just all of a sudden I had this terrific pressure and I thought well what can that be because I hadn't had any breakfast. I thought real severe indigestion right away but then it was much too heavy". (Helen)

> "I didn't know what was happening. I thought I had a bad case of indigestion.I thought the pill (I had taken earlier) was giving me problems". (Betty)

Several related their symptoms to the flu and pneumonia. But even when an informant had decided upon what appeared to be the most likely cause, a great

deal of uncertainty surrounded the decision.

> "This is ridiculous. I can't be getting the flu. I mean this isn't how the flu starts...This is weird. I feel very peculiar, something is terribly wrong". (Shirley)

In all instances, no women initially attributed their symptoms to a MI.

Managing symptoms. The inital action to their symptoms that many took was to try remedies that had alleviated indigestion in the past.

> "I went down to the basement and got some 7up. I thought I could bring up this gas". (Eileen)

Others who thought it could be the flu or a cold, tried things that had comforted them in the past. Four of the informants had a wait and see attitude hoping their symptoms would improve or resolve given enough time. The women were unsuccessful at reducing or alleviating their symptoms and in most cases their symptoms worsened. A sense of frustration was ascertained from one of the women as nothing seemed to be working.

> "I was taking maalox and things like that, I couldn't sleep. I felt I had trouble breathing and I thought I'd better get up. This was about 5 o'clock in the morning. I decided I would have a warm bath and it will make me feel better. And that's what I did. It didn't help but I felt better. I was walking around and I couldn't understand what was wrong with me. I was annoyed at myself more than anything else". (Betty)

Seeking Help. The women sought the help of others once they were unsuccessful in their attempts to alleviate their symptoms. They could no longer trust their own ability as they could not rely on past experience. Husbands went along with their wives' wishes as to when and where to access medical help. Two husbands intervened by taking matters into their own hands; their reason being that the symptoms had persisted beyond what they perceived to be a reasonable

time period. Both husbands had a history of cardiac disease.

The women without spouses turned to their daughters for help. They called their daughters and allowed them to decide what would be the next step. There was no interference or disagreement from the informants. So once they relinqiushed control, the women had complete trust in the other person's judgement. Interestingly, for the three women who experienced their symptoms in the middle of the night, all waited until morning before contacting a daughter. This was done in an attempt to not inconvenience their loved ones.

> "I knew I needed help, it came back (pain) about the same time, woke me up. I phoned my daughter. I waited until 6 o'clock because I thought it'll go away, I didn't want to get them out of bed but I know they get up at 6, so I phoned...I think I'm in trouble. She said mother, we're phoning 911, get off the phone, we'll meet you at the hospital". (Rose)

Very few considered their symptoms as serious. Only four women used an ambulance to transport them to an emergency department. Six women went directly to a hospital emergency department. The others went to nearby medicentres or made appointments to see their general practitioner. Of the four that initially went to their family physicians, three were misdiagnosed. One woman was misdiagnosed twice by her physician.

> "I went directly to my doctor and I don't know why he didn't pick up on it but he didn't. A couple of days later he gave me a complete physical and I just don't know where it went wrong but anyway nothing about the heart attack. I said to myself, I had gone complaining about a really bad pain in my heart over Christmas..I went to my doctor and he said not to worry because if you have a heart attack it's a real crushy pain, pressure. So now, had this real crushy pain, I don't know whether I'm imagining it because you said...But he didn't pick up on it for some reason". (Helen)

And yet another woman's symptoms were misdiagnosed four times by three

different doctors over a period of two weeks. In desperation, this woman returned to her family physician and asked specifically if the symptoms she was experiencing could be related to her heart. Her physician discounted cardiac disease as the source of her difficulties, diagnosing anxiety instead. The misdiagnosed women were therefore substantially delayed in accessing the emergency medical system. The mean time to access the emergency department for these women was 212 hours, compared to 18.20 hours for the other women.

Being Hit With the Reality

Being hit with the reality of change begins when the women arrived at the emergency department of the hospital. They underwent various diagnostic tests to find out that they had a MI and were eventually admitted to the hospital. Once their symptoms were verified by healthcare professionals, the women cognitively removed themselves from the ongoing events, as a means of maintaining a sense of control. They struggled with the reality of their diagnosis. In an attempt to maintain control, several informants disbelieved the diagnosis. The informants reflected back on plausible related symptoms and their health history. The women endeavoured to make sense of why the MI had occurred, so that they could regain a sense of control.

Verifying the symptoms. Four of the women were unable to recall the events which took place in the emergency department in any great detail. For several women, this was a reflection of their poor state of health. But for the other informants, they were aware of what was going on, but they had

disengaged themselves from the ongoing events. This was their way of coping with the seriousness of their symptoms and the emergency department's environment.

> "I don't remember at all, they tell me that I was never unconscious but I don't know. I remember the doctor saw these x-rays. He said "No, it's not a heart attack". Cardiogram is normal. I remember the arterial blood gases. Fine too. They took an x-ray of my chest and found fluid. I had had a heart attack but they didn't know when... I remember one of the interns or whoever he was, I had on my favourite pair of pantyhose and instead of taking them off he went and cut them right here and I was on the verge of saying "What in the hell are you doing to my stockings? But I held back so I did know a few things". (Anna)

> "They checked me into one of the little cubicles and started, you know, working on me. They put in three intravenouses and I just laid there..." (Pearl)

Amidst being stabilized clinically, undergoing diagnostic tests, and having arrangements made for their admission, the women began to face the reality of the seriousness of their symptoms.

> "I was frightened. I was frightened. I thought this is it...But the care was...they were good. They put intravenous...by then I knew it was serious, and they brought a cardiologist". (Rose)

Husbands or daughters were with the women in the emergency department. The roles they played were determined in some instances by the situation. For example, one daughter assumed a watchdog role because of the staff's questioning her mother's living will.

> "So I don't want anybody hooking me up to anything. There was this consternation, it was just ghastly. They were all looking at each other and there was obvious resonance there. And I said "I am serious about this". And they said "But look", they tried to rationalize it. And my daughter got there and said "When my Mom says, no she means it". And she was very good and I was very thankful to have her there". (Shirley)

Yet in other cases, the women themselves determined their loved ones' roles. For example, Rose was concerned about sheltering her family from any inconvenience

> "The pain had gone. And I kept telling my daughter please go home, please go home, I'm fine, I'm being looked after...So I decided not to fret, but you know, there again, you worry about your children, they're wasting time, they should be at home". (Rose)

Thus, the family's role varied according to the perceived needs of the women. The husband's role was less clear, as very little was said about their actions or feelings during this time.

Although most women experienced fear, uncertainty, and frustration. In the emergency department, two informants commented on how secure they felt. Four of the women were appreciative of the staff's efficiency.

> "I was frightened. I thought this was it...(voice trails off)... I'm being looked after. One would come and go and the other would come and go. But I never felt that I was left alone. The care was tremendous". (Rose)

> "there were no explanations they moved very fast. I feel that if they hadn't had moved so fast I would be a cripple today". (Irma)

Several women had to wait a long time to be admitted, but only one informant was frustrated by this, which was in response to the possibility of being transferred to another hospital. The women who spoke negatively about their emergency department experience were those who had accessed the department several times due to the unstable nature of their illness. One talked about a delay in the diagnosis because of tests, while the other complained about the staff taking action before verifying it was a MI. Because of their several trips to the emergency department, these women had developed expectations based on

their past experience. Their actions reflected this in that they took on an active role in deciding the most appropriate medical treatment. The women perceived this as being problematic for the healthcare professionals because they insisted on having some control over what was to be done to them.

> "It wasn't a heart attack, it was, they call it unstable angina, I didn't let them x-ray me and I didn't let them give me intravenous nitrogen because I felt they had, I only just left a week before. I wished I hadn't let them put an IV needle in because it's gone and bruised me"...but you see you hurt nurses feelings when you say no and they get really huffy. But I would let them get huffy. I would be more assertive". (Betty)

Reacting to the diagnosis. All of the women, except for one, were completely taken by surprise when their symptoms were diagnosed as a MI. Four women talked about "not knowing" they had a preexisting cardiac condition. Several spoke directly to being unfamiliar with the symptoms.

> "I never thought it was a heart attack, I didn't know what it was. I was kind of surprised. I thought that when you had a heart attack, you'd fall down. I never thought it was a heart attack". (Yvette)

Even when diagnosed, four informants disbelieved the diagnosis. They were unable to face the reality of their diagnosis and all the uncertainty it entailed. For other informants, their lack of pain and diminshing pain contributed to their doubting the diagnosis. They were not experiencing physically, what they expected. Therefore it was quite plausible to them that the diagnosis was an error. This was their way of coping with their diagnosis.

> "It was a surprise because the pain had gone away, it sort of came and went but I was feeling fine, whatever it was that I had ..But then they said no, it was a heart attack, we have to keep you". (Helen)

For several informants, the coronary angiogram results were neccesary before

acceptance of the diagnosis of a myocardial infarction could begin.

> "..until he took that angiogram, to be honest with you, I still had hope that maybe it was not a heart attack". (Anna)

It was evident that none of these women (except for one) had considered themselves to be susceptible to a MI.

Reflecting back on the diagnosis. Once the women had been diagnosed with a MI, they attempted to make sense of what had happened. Over half of the women reflected back on what they thought may have been a related symptom in their past. Initially they searched for events out of the ordinary that had occurred within the past week or two. Some had to go back further in time.

> "Two days earlier, I was mowing the lawn when the most extraordinary pain in my throat which I didn't recognize as anything I had had before. But it went away and I did the mowing and had no trouble". (Shirley)

> "But thinking back a few days before that, maybe even a week to 10 days before that. I felt a little discomfort along my jaw..discomfort in my upper arm, an ache. I've got a bad neck condition so I really didn't think too much of it". (Anna)

> "(months ago)..and this is funny, I used to get awful pains in my chest. Well I don't know if that was a heart attack or not but I had pain in my chest and how I used to cure it was to get up and make myself an omelette or get some potatoes cooking...so I still don't know". (Ruth)

In an attempt, to make sense of their diagnosis, seven informants reviewed their past health practices. Their search for a cause of their MI was done so that they could develop a personal understanding of the experience. Consideration was given to poor lifestyle choices, diet, stress, smoking, and use of alcohol. One informant believed that she had done everything posssible to ward off the threat of cardiac disease. Anger and betrayal was expressed by Ruth.

> "I'm very angry, I read that Vit E helps to avoid heart attacks and I've been taking Vit E for the past twenty years. I have not abused myself with alcohol. I have led I think a very mid life in terms of everyday hygiene, so I feel that I was cheated ...I was short changed... The one bitterness I had really, the almost anger was that I led a good life and it seemed so funny that I should have a heart attack. Never failed I went to the doctor every two years or so for a full checkup. It's like the story of the person who goes to the doctor and he has a perfect card of good health and comes outside and drops dead. That's the way I feel about it". (Ruth)

For all of the women, cardiac disease was considered to be a disease of lifestyle.

The process of looking for a cause was often associated with a sense of guilt.

> "I've always led a very active life, above average. I'm not a big eater, I've never over eaten, I"ve never been overweight. The only thing I have done wrong is smoke". (Shirley)

Another informant, in retrospect, had regrets to how she lived her life.

> "I smoked, my cholestrol was elevated and I tried controlling it with diet and of course it did fluctuate...I could have lost more weight. So those are the things I keep thinking if I would have like I had stopped smoking at one time. I keep thinking gee, why did I start. Then of course my cholestrol, I keep thinking why did I rely on diet alone, I should have taken medication". (Anna)

The anger and bargaining represents the beginning of their struggle to accept the change.

The healthcare professionals that cared for the women also sought a cause for their MI. One woman felt pursecuted.

> "I felt like a criminal, I've always been healthy...So they said "Well it must be smoking then. Yes what else could it be? I thought Oh dear, I'm sure there is some novice smokers in here who have had heart attacks and have not necessarily caught it through sitting next in an office to somebody who smokes. I mean, it's a little hook for them to hang things on". (Shirley)

Smoking, medication change, situational, physical, and environmental

stress were identified as directly contributing to the occurence of their MI. But for four women, no contributing cause could be found. This left these women feeling uncertain, for they had no idea what had brought on their MI, and therefore were unable to protect themselves from a possible future reccurrence.

Discovering the Nature of the Change

Discovering the nature of the change commences once the women had been transferred to CCU and ends with their discharge home. This phase is marked by various diagnostic tests to ascertain the severity of the MI. The experiences of the women during this phase are as varied as their conditions. Several women experience complications related to the tests they underwent. Several informants reinfarcted and were readmitted; thus this phase was repeated. The women make sense of their experience through others in this phase. All of the women in this study have had few previous hospitalizations. Their lack of experience resulted in uncertainty. Their uncertainty was linked directly to the women's perception of control. As a means of coping with their diagnosis and the unfamiliar environment, the women took on passive roles. The informants struggled with a perceived loss of control over themselves during their hospitalization. Several women felt a loss of identity and powerlessness. Family members sheltered and monitored their progress. The women left the hospital with unanswered questions which caused them further uncertainty once home.

Being vulnerable. Once in the hospital the importance of maintaining a degree of independence for the informants was evident.

"I just don't like a hospital, I haven't spent much time. I never have. But...

> I guess I'm afraid of being an invalid. I don't like being taken care of . I care of prefer take myself ". (Betty)

> "So right the next day they let me get up and go to the bathroom...I did and I ate alone, I ate myself. I did and then when they took me again on the regular ward, I got up I bathed myself, I went to the bathroom myself ". (Anna)

The women took on passive roles. They did not know what to expect so they trusted in and relinquished control over their bodies to the healthcare professionals.

> "But I didn't really feel that they explained, then they came along with 2 transfusions and they didn't tell me why or explain that it was necessary or nothing, just going to give you...okay, so what, you just did whatever you were told. So you go along with it. They just said we have to give you 2 transfusions, and poke your arm again". (Pearl)

For the one informant who had been quite ill, losing control of her body went beyond what was being done to her. She was struggling to control her bodily functions.

> "I had lost a lot of control of what was going on and on another level I was making a very determined effort to control the situation seeing that my daughter was there, seeing that I didn't make a jackass of myself...I've never been that much ill, always been in control. And another thing that was very embarrassing, I couldn't control my urine. The comfort like you want to urinate and you can't even feel like you want to urinate, gee whiz you are completely out of control. I couldn't distinguish between my bowels and my bladder. It's like you have no control over the whole situation. I don't like to think that I'm a control freak but being in charge of oneself is so important". (Ruth)

Events in the hospital were perceived to be beyond their control. This was especially true in relation to waiting for a coronary angiogram and a/or coronary angioplasty.

> "You lose all control of what's going on. Somebody will come and say " You're having an angiogram tomorrow" and so you are starved. And when

> it comes time to go into the angiogram you've been bumped off the list because somebody, you know in a greater state of emergency has come in which is perfectly understandable - that's okay. So you start again the next day and hope you'll get on". (Shirley)

For one woman, the experience of having a coronary angioplasty left her feeling vulnerable because the situation was felt to be beyond her control, both physically and emotionally.

> "Having been warned about all the things that could go wrong. I wasn't in the least bit worried about that. I asked "You won't forget my sedative will you?" No, no. Well all I can say is where is this stuff because I never got anything once I got down, it was a most frightening experience and at one point it was so painful-I burst into tears and a very tired irritated voice from a male doctor said "What is the matter?" I said "I cannot stand it any more. It's hurting too much stop it!" He said "You've done so well, we're nearly there". I said" I cannot cope with anymore. At that point somebody shouted at me "Take a deep breath, Hold it" and because I was sobbing I don't know how successful the x-ray was. It was a most awful experience.Technically they may have been doing a lovely job, I don't know. But I nearly went crazy and I thought by golly I had no power left. They can put me through all this, they can say in irritated tones "What's the matter with you" and I said "Could I have kleenex?" And that appalled me so much that I thought alright I hope the next heart attack that I have will be so massive that they won't even get to see me. It was so awful. And if that's bad, What in heaven's name is it like to have bypass where you got less power because you're zonked out. I was so desperate. I couldn't stand it any more. I felt so stupid sitting in the x-ray department crying, you know, What next?" (Shirley)

The struggle for regaining control was greater for the women who had been readmitted to the hospital. One informant who had run into complications, related what she would have done differently.

> "I wouldn't do everything they told me to do. I would question why they were putting a needle into me. I would question why. I'd just talk more and I would be much tougher. I wouldn't just accept everything. And I wouldn't trust, I don't trust them much but I would not trust them at all anymore. I would make sure that what they were going to do was the right thing. I might even say you can't do it today, I have to read up on it. I was much too timid"...(Eileen)

A loss of control by one woman was attributed to the effect of medications.

> "And then one night when I was back on the ward, I don't know what kind of drug I was on, but I was really quite confused about the whole thing and I ended up on the floor over the bed. You know, I fell out which I gather can happen". (Evelyn)

Several other informants talked about medications in light of their experience, in that they felt the side effects of medications were understated.

> "One's put on certain medication-they tell you what they are for and they mention the odd side effects that you might have. And all I could say is the side effects are much worse. For instance, one of them gives you really terrible headaches. And then one day a clever nurse came and she said "If we put this patch on farther away from your head you won't have such a bad headache. You may not get any at all". Oh what rapture that was!" (Shirley)

The hospital environment and the life saving devices were foreign to many of the women due to their previous limited experience of being hospitalized. This caused worry and uncertainty for many of the informants.

> "I had these bags hanging by my bed which they seemed to see were important and they had something else besides me up on a pole. And I am very nervous of these things because I am not sure what they do but I know that if they are going into your veins and if they empty and air gets into your veins you've had it. So although I know nobody is trying to kill me, I'm watching these bags and I made a real nuisance...Heh, watch that bag (it) is getting low. I am very concerned about anybody forgetting to watch those bags even if they are not going into my bloodstream they are going into me. I don't like this stuff going into me. This is bad business and I'm watching these things". (Ruth)

Communicating in the hospital proved to be problematic for the women. This only added to their uncertainty in that they were confused as to whom to get information from regarding their MI. And one informant was unable to give the healthcare professionals necessary information regarding her condition.

> "I couldn't figure out who to ask about anything. Because I didn't see any normal cardiologist and of course once you're outside the ICU you don't see the chap who runs that either so you, I mean the people are very kind to you but you don't have confidence, actually who to talk to...I really was worried about what was going on". (Shirley)

> "But it doesn't work that way in the hospital when I should have complained, when I was in the hospital, but I thought they knew more than I did and I didn't know how to tell them I was in such pain. I just didn't know". (Eileen)

Loss of identity was experienced by several women during their hospitalization. This appeared to be more common in the women who had been rehospitalized.

> "He sat on my bed after I'd had that horrid angioplasty had lain half the night like a ram rod and I was in a terrible endless night of misery and pain. And he sits on my bed and talks to his residents blah, blah, blah. Meanwhile he's just fiddling with your thing-those sort of stoppers until there's no danger of hemorrhage - and he's fiddling with all this, My god help, somebody! It's hurting, you know, and he's not even looking. Then he goes off and washes his hands and he's talking to the dozen or so residents. He never said a word to me the whole time". (Shirley)

> "Well the doctor came the next morning to see me, with 3 others, I guess they're doctors in learning. Well he was explaining to these three stooges what has happened to me, he was telling them what had happened. While he was telling them all this and then he told them that she had a slight heart attack. See I didn't know, eh?" (Yvette)

Their physical experiences varied. On the whole they did not experience any pain directly related to their MI once stabilized in the hospital. This caused uncertainty for the informants because their expectations of the pain associated with a MI was not being met. One informant questioned the effect her MI had on her cognitive functioning.

> "But it is not painful, and in a way it seems funny to be so helpless and yet there is no pain. I had a bad heart attack, my daughter has given me some idea of how bad it was and yet I don't feel any pain and I don't feel

> anything. And to tell you the truth, I don't know if I really mean this but when you are in your body and you don't have any feelings of anything...it's fairly weird unwholesome kinda feeling...one day when I was in the hospital, I got the funny thing that maybe my brain had been hurt by this heart attack. And maybe it was just lying there like a piece of liver. I told my doctor this and I was telling the ward, they must of thought I was crazy. And again I thought I had a heart attack and I didn't feel anything in my heart, how do I know my brain is alright? I was frightened. When I saw the physician, well maybe he thought I was going crazy or maybe he thought I was delirious. But it did go away and later on I was saying that I don't feel so nervous about it. I think that what little brain (I have) is still pretty much intact but I'm not sure that I haven't lost some function". (Ruth)

Two women suffered substantial pain from complications which arose from anticoagulants. They hemorrhaged spontaneously which dramatically affected their subsequent recovery.

> "And I really didn't understand exactly what had happened and they did an ultrasound on my stomach and apparently that showed up this big hemorrage and between the kidneys and the big muscle in my leg and about the fourth day I was in the hospital, I stiffened up, I could hardly walk, and I just thought Oh that's my arthritis in my back. But I didn't realize the effects of the hemorrhage and the pain it was going to cause. It would start and like it just involved the whole leg, it would go right down even to my big toe". (Pearl)

For several, their greatest source of fear during their hospitalization was having a coronary angiogram.

> "My husband had an angiogram and it was terrible. He was black and blue from his hip right down to his toe...I was dreading it. And I didn't even know that they did it. I thought well this is great. Well then after, then you go in and then they put this pressure on you and I said Oh my God. I said this is really awful. She was just putting all her weight and I said you must have muscles!" (Helen)

Facing Death. Several women during their hospitalization thought about the possibility of their death. This often led them to review their lives.

> "...I kept thinking, have your own way. Have thine own way Lord, I thought I had a good life. If this is the time, okay. I've been fortunate. I remember someone coming from the church, wanting to pray, I says "I don't want to pray, I want to give thanks. I've got so much to be thankful for that if my time is up..I didn't want it to sound morbid. I wanted to give thanks because I feel we had no problems with the kids, we've been happy". (Betty)

> "I'm rather surprised and I'm a little ashamed cuz I'm not that religious but you know it's a sort of fatalistic thing. Why did God spare my life? I can't just sit around and do nothing. I gotta show him that it was bloody well worthwhile. Now what the hell am I gonna do at 83 to prove to God that it was good that he gave me my life back...Hell, give me a drink of scotch, I paid him back along time ago". (Ruth)

The outcome of this reflection, for these women was that they were thankful for their good fortune and healthy long life. The only informant who had given prior thought to her death experienced conflict with the health care professionals in regards to their carrying out her living will.

> "They've got one aim and that's to keep you alive. And that's commendable as an older person is quite content to remain alive with a heart condition. And it seems to me that when you have threescore years and ten and not a lot of misery and anguish in the way of health and you hit 75 or 76 you're well ahead of the game. I mean you've been jolly lucky. And what's wrong with nature taking it's course ?" (Shirley)

Relating to Others. The family members that came to visit in the hospital served to reconfirm for the informants the importance of relationships in their lives. Family also helped the informants to make sense of the experience they were enduring. Their family was able to provide them with information regarding their condition. This enabled the informants to enhance their understanding.

> "Then I was in ICU and I really don't remember being taken up there. I don't know if it was the medication that was affecting me or what it was...here was my nephew and his wife. Everybody was so concerned and

> so worried and my son was flying in from Victoria. My brother came. We have always been very close and I knew no matter what I could count on him". (Betty)

> " I don't remember anything else and what is really terrible...when I first saw my daughter, it was something like two or three weeks after I had been in the ICU, I thought it was a matter of minutes ..My granddaughter tells me it was simply awful. She said look "We were expecting you to die, now understand that". I said Okay, okay but it seems weird to me. I was surprised to see my brother from mid Ontario...my stepson from Montreal...it was hard for me to realize that I was the cause of their being there. I really thought that there was some series of incidents that had caused them to be in Edmonton". (Ruth)

Five of the women had family members who made inquiries on their behalf and monitored their progress during their hospitalization. For some, this role was an expectation due to their professional training in health care. The husband's role was less clear during this time. No reference was made to them, except for one husband who intervened when discharge teaching was needed.

> "I didn't have to do too much of that because of my daughter. She works with similiar things. The nurses were very good to her, they let her see the chart and then she waited to see the doctors everyday. So she was able to tell my doctor the whole story. We are lucky we had a daughter that could understand what was happening. She talked to the doctors and nurses. She kept on top of it. She probably would have done that anyways, its part of her training." (Evelyn)

In dealing with health care professionals, the daughters were acting as watchdogs. The informants had relinguished control to their daughters. By watching over their mothers, the daughters were sheltering them from worry.

> "My feeling is that while I am in a state of acute illness I'm going to be well taken care of, provided I've got somebody, a relative around to make sure there's no resusitation against my will".(Shirley)

One informant sheltered herself from others. Her sheltering extended to not wanting to impose on the nurses.

> "I didn't have any company in the hospital. I wanted to use all my energy for getting better". (Eileen)

> "I didn't ring my bell. I was much too timid. Well, I was trying to be helpful and I really regret it". (Eileen)

The women had positive regards for the physicians who managed them in the hospital. But the participant with the longest hospitalization took a different view.

> "the doctors nowadays, they' re so scientific. They don't get the feeling of how you are." (Ruth)

One informant qualified her relationship with doctors by stating:

> " Well I think, you wouldn't understand this and your generation maybe doesn't understand it, but I grew up where we were beholden to the doctor. He sat on the right hand of God almost and so that when I even now, I've been going to Dr.---- for a good twenty years, but even now I take a list if I'm going because I forget my own name when I get in there. And it's me, it's not the doctor, it's just..the tail end of youth. And that was just the way it was in my generation. And I've heard my friends say the same thing so I'm not alone." (Rose)

The women who were rehospitalized took a more cynical view of the doctors in that they mistrusted them. The women that were misdiagnosed before their hospitalization were angry.

> "If it was diagnosed right away that maybe I would not have the permanent damage. I do feel quite bitter about that..." (Helen)

Nurses were regarded in a favourable light. Their level of expertise was acknowledged. But their presence for one of the informants, was questionable.

> "the ward, I found the nurses were okay but they were running, you know, like mad...I didn't have much with them, I don't think". (Evelyn)

The women were aware that the health care professionals were unable to relate to

what they were experiencing, and they commented on their lack of empathy.

> "(giving up smoking)...I don't have a choice. Oh what hell it is giving up smoking after 50 years, it is awful. I am just saying, all I wanted was for somebody to say "Gosh it must be hard", yes, yes...nobody not one solitary person.."(Shirley)

> "He told me that in his 30 years he'd only seen 5 other cases of hemorrhaging and I was one of them. And he said I'm so sorry, just so sorry. And I said "So am I, I'd just as soon not be one of them". He was very sympathetic and even though you are going through the pain you need to hear that". (Pearl)

The women talked about the bed, machinery (angiogram/angioplasty), and staff shortages during their stay in the hospital. A lack of leadership, communication, and coordination was also mentioned.

> "We're back to the same conditions as were in Edmonton when I came here after the war. They were too busy, not enough beds. There's no communication. And the thing that I object to mostly as a patient is they don't get together and put, like we've got computers now. What I don't understand is why everything isn't put on one little page. So that when the next guy comes, they've got so much part-time staff, when the next guy comes he can look back on the computer and see that the patient's blood is low or...They need a boss. There's no boss. It goes right from the cleaning person that doesn't do into the corners, that skips the toilet that other people are using". (Eileen)

> "I think they're so busy that they just, you know, they've got so many people to run around to, that they just don't communicate, you know, it's not their thing". (Evelyn)

They also criticized the cuts in the health care system.

> "They are not saving money by not fixing people...if you'd fix a person up, they would last longer just think of how much cheaper it would be". (Eileen)

> "You get the feeling like you'd like to strangle the government and everybody else that's doing all these cutbacks because they are torturing the people that are there. They're trying to do their level best for you, and the doctors, you look at the paper and see such and such specialist left, such and such specialist left - Why are they leaving? And

> then you keep thinking well you know if it wasn't for this, there would be, because this poor doctor that's looking after 20 people maybe he'd only have to look after 10. And so the rage is there". (Anna)

Again, the women who had a brief hospital stay spoke more favourably about their hospitalization.

Anticipating Discharge. Overall, the women had no concerns surrounding their impending discharge. Only one woman voiced some reservations about managing the stairs in her home. All were eager to go home.

> "I was home sick. I'll cook a piece of beef, walk around touch the furniture, say how terrible it is that it isn't dusted, even my bathroom. And it's not that I have such a beautiful home but the dirt you know is your dirt". (Ruth)

> "I wanted to come home. I just like being home. I guess I'm a home body. I wanted my independence and my freedom". (Betty)

> "Not really, just to get better. Yeah, you know, I have my husband with me, I wasn't alone. We both appreciate each other and I felt I was awfully lucky, so I didn't really have any concerns". (Pearl)

All of the women left the hospital with unanswered questions. Once home, this caused them uncertainty.

> "I had a very poor experience, there was a nurse that told us I didn't need to see anybody before I left. We were both very disappionted. Finally my husband insisted we see a doctor and he did give me some instructions, I think I've still got them here. So I came home with no other information other than the pills. I didn't know what I was suppose to do or anything". (Eileen)

> "I'd like to have had more information about the hemorrhage and the effect that it was going to have. They didn't explain that. I didn't know what it was. My own doctor explained it to me after I was home." (Pearl)

The lack of information resulted in misconceptions, worry, and an inability for the informants to feel in control of their bodies.

> (following her second MI) "I was still on the medication. I thought those would prevent anything from going wrong". (Shirley)
>
> "They described the different pains but my trouble was that I never had any of that. And I still do have a lot of burping...So like even now a lot of times I get a little bit of discomfort here but as soon as I burp it goes away. And I'm getting a little brave but it's still in the back of my mind, you know, What is it?" (Anna)

Adjusting to the Change

Adjusting to the change commences upon the discharge of the women from the hospital. The informants, once back in their familiar surroundings, began a process of adjustment. As the informants improved physically, they redeveloped a sense of personal control. Their uncertainty diminished. They were motivated to get better so that they could return to the lifestyle they had previously enjoyed. They tested themselves on their ability to resume previous activities. Their independence was regained as a result.

Setting limits. Once home, the informants took great joy in their new found independence, but it was over shadowed in the first few weeks by their weakness and fatigue. As a result, their activities consisted mainly of resting.

> "Coming home was like being let loose from a terrible prison. The first thing I wanted to do was to have a cigarette". (Shirley)
>
> "When I got home it was wonderful. I walked around alot. If I wanted to eat at 2 o'clock in the morning I could get up and make myself a cup of coffee".(Ruth)

Several experienced, for the first time, an awareness of being alone even though they had lived alone for some time. Being alone took on a new meaning for them because of the uncertainty of "not knowing when you might have another one". Only one woman considered a move into a seniors accommodation.

"My daughter in law said "Don't lock the back screen door because if anything happen we may need to get in". I didn't like that because I didn't want to think about it." (Irma)

"The first week or so I was a little nervous being here alone. But I thought I'm not going to let this ruin the rest of my life. I haven't that many more years, God willing, but I really don't think about it too much now". (Rose)

The women experienced varied unexpected short term physical changes.

" I don't know how common it is but I had an awful time with food. What bothered me when I got home was that the things I used to like, my innards were all mixed, I couldn't stand them. I went to make coffee it tasted like poison. I had wanted a glass of wine it tasted like poison. I had to put water in it. My taste is better now, I'm able to cook up roast pork and taste it". (Ruth)

"And I came home and the worst part of it was my nerves were bad like I couldn't seem to relax. And if my husband would come in to see me I would have to get up and leave the room because I was all tensed up. But I recovered very quickly I think it was the result of the angioplasty because it's kind of hard on the nerves". (Eileen)

For the women with greater physical changes, this phase was long and at times frustrating. The physical changes were a cause for great uncertainty.

"The one thing that bothers me terribly is I have lost my muscularity. I was always very proud of that. When I walk something has happened to my gait. I think it will come back because when I first got here and went down the steps, my brother was surprised I could get anywhere. Yes, so it is coming. It is a horrible experience in the sense that you know that there's an enormous change but you also know that maybe you can't expect that much more...I did worry if I was ever going to be real like my body was so mixed up. I'm amazed at how long that took. I was very sick and everything was out of kilter. Now it's coming back. My feet are down there, my head's up here and my dentures are in my mouth. I wasn't worried about getting back on my feet. I was worried about wholeness because everything seemed so split up. I just had to force myself to try to be patient. And every little thing that I saw was slipping back into place. It was a long process and I had to discipline myself and realize this is going to take time. It was hard for me because I'm not a patient person." (Ruth)

Health care professionals suggested several lifestyle changes to the women. On the whole, the women embraced these in a belief that changes would eliminate the occurrence of another MI. Of the changes these women had to incorporate into their lives, the cessation of smoking was by far the most common and difficult. One informant "bent the rules" in learning to accept this change.

> "All I wanted to do was have a cigarette. Now I'm having a cigarette and that'll show you lot (health care professionals). And it was awful because it tasted so awful, it tasted terrible. I mean for the first time in 50 years I haven't had a day without a cigarette. I didn't realize how much I enjoyed it...I lit it and I felt good. So I put it on the ash tray and each day for two days I'd get a cigarette and just light it. And I pushed on the ashtray and I'd pretend I was smoking. I mean I'm fooling nobody certainly not myself. I was so depressed, I thought my god, that's one of the greatest pleasures in life. And since I've been so healthy it seems mean... I've got a duty now not to smoke because you (health care professionals) had worked so hard to get me better. But I have tremendous resentment". (Shirley)

Informants set limits on the number of changes they were willing to make in their life at this time. This was an attempt to take back control in a life they knew would never be the same. They knew the changes they had to make, but when and how the changes would take place was their decision.

> "I don't care if I give myself another heart attack. I've given up smoking that's enough for now. It gives you a sense of guilt the minute you slug back a glass of milk and it's not 1% which is no stronger than breast milk. I don't like breast milk". (Shirley)

Depending on others. Once home, the women were unable to do very much due to their fatigue. Their families were very supportive during this time. The women who were alone had children who met their needs. The married informants' husbands took on a greater role by participating directly in their care.

This was quite evident for the women who experienced complications. Only one informant received outside assistance (Home Care) during this period.

> "They let me come home and I couldn't walk and I had lost 15 pounds. I hadn't washed for two weeks. My husband the next day got me sitting on a stool in the bathtub and washed me and then he started to feed me". (Eileen)

The women acknowledged the psychological toll their MI had taken on their family.

> "The heart attack has affected my family more. They worry more, call more". (Irma)

> "I don't think I could have got through this without him. You know the nights that I rolled in pain, if I'd been alone, I'd gone stark raving mad. But he was wonderful and he's just recovering from an operation a year ago and he's not in super health and it was very hard on him". (Pearl)

They appreciated the much needed assistance they received, but at the same time drew limits as to what they would let their loved ones do for them. What may appear as not wanting to impose upon family can be regarded as "sheltering" their loved ones.

> " two days after discharge returned to hospital for treadmill test) I remember I came home twice in a taxi. My daughter, she works at the school, she's a secretary and I didn't want her to lose too much time and loseher job or something so I said never mind about me, I'll manage and come myself ". (Yvette)

The MI had disrupted their role in the family. As the women improved physically, they were uncomfortable with their family doing everything for them and they strived to regain their independence.

> "When I started driving, I had to report in every five minutes and if I didn't she'd (daughter) wonder where I was and in the house like the first time I washed dishes she said "No, you can't do that" and I said "yeah I can and I

> will", that sort of thing, and I did...It did get on my nerves and cause friction. And then they finally realized that I had enough common sense that I wouldn't do anything to hurt myself. Little by little now they got to get adjusted to it that I have to go on living. I mean the daily things like driving the car and looking after myself and going to the store, that sort of thing, I should be allowed to do that". (Anna)

The women in this study greatly valued their independence. This motivated them to resume their previous activities such as cooking, taking long walks, and driving.

> "The freedom to do as I please in my own place with my own pots and pans. And my children make fun (of me). You know, maybe I am a control freak. I don't know but managing to do what I want, that is a measure of my health so to speak."(Ruth)

> " And then I got my cane. The occupational therapist that came to the house said she thought that the cane would help. And I like it, that's my friend. It keeps my balance and I'm still a little lame and I didn't want it to be a habit, you know and this way I can be a more independent. If we go shopping I still take it". (Pearl)

Although welcomed by the informants, returning to their past level of independence was also a time of uncertainty. Only one woman engaged in anticipatory worrying. She contemplated extensively about the possibility of having a MI while driving. By preparing herself for the worst possible scenario, she felt a sense of control over her future.

> "So.once I got behind the wheel of my car, the first couple of times I was hesitant, I kept thinking Gee, what if I get sick now. What if this?, What if that? I do have a cell phone so I carry that with me. Now I'm going to get some ID into my car so if anything did happen whoever found me like who my doctor is what medication I'm on. And also another thing that I'm thinking of getting is one of these beepers where you let the ambulance know that you're in trouble". (Anna)

Testing themselves. An important aspect of accepting the changes was the process of discovering their new physical limitations. The women went

through a testing period to determine what they were able to do physically.

> "I'm accepting it now. I don't feel it's (MI) limited me that much physically I won't be able to do some of the manual work (yard work). But I cook the same wash clothes and iron and everything else. You feel like yeah I can still do it. This hasn't stopped me. To start with I did sorta panic about doing the work...I remember the day I did the windows the next day I really wasn't feeling good and they pulled me off the treadmill because something was going wrong with my heart and I panicked because I thought the angioplasty was collapsing. But the next day I was back at 3.3 miles an hour and I finished the whole thing and I really felt good about it. I said "Hey, it didn't collapse. So I overdid it at home". (Betty)

> "For awhile I had to have my daughter help me and she was very nervous but I got to the point where I could take a bath myself. That is the most wonderful thing because once you're home you get to know what you can do. It helps me to have a much better understanding... because you are reduced to childhood. And now you're like you've gotta take some steps and feel the whole thing out again". (Ruth)

Their ability to accomplish tasks led to increased feelings of confidence about their capabilities, which in turn, decreased their feelings of uncertainty, and gave them a greater sense of control over their lives. Unfortunately this was not the case for all. The women who had symptoms which reoccurred once they were at home were again faced with uncertainty and being in a situation that was out of their control.

> "And then on the 16th of January I'll never forget that, for some unknown reason I felt so super, like I felt like I could just go through the whole house and clean it. So I did. I kept track of my pulse. They did warn me in the hospital not to let it go over 90. So I watched and here the darn thing had gone to 135. So I sat down right away, thought it would settle down right away but it didn't. So I got kind of worried and called my daughter-in-law and we went to the hospital. They couldn't find out why this happened to me and it went down on it's own...Then a couple of days later it started to race". (Anna)

The majority of the informants have been able to resume their past

household duties but have "slowed down". This did not appear to be a concern for them.

> "Slowly I tried to do a bit of housework. I think if I can't do it my body will tell me. So I did a bit. I don't feel the same. I don't have the strength I had before. I used to start something and finish it. Now sometime I have to lie down. It doesn't bother me that I am slower in my housework. There is nobody here but me so it doesn't matter. It might be different if someone else were here. I don't want to leave this house. My husband built it. It is big and alot of work but that's okay what I can't get done today I will do tomorrow". (Irma)

They were thankful they did not have the pressure of having to live up to the expectations of co-workers. They perceived their present situation as less stressful. They were quite happy to be making the decisions surrounding the resumption of their activities as they were re-establishing a sense of control over their lives.

> "Ahh it's not as if I have a job to go back to and I better be up to par because everyone is gonna be watching me. In a way, I'm home free. If I had two more years left then I may be so concerned about how I'm comparing with what I was doing before that I can make a real muck of things. But hey now what are you talking about". (Ruth)

> "Anybody that's retired doesn't have to worry about getting better fast so they can go back to work. You don't have to go to your boss, "hey could you cut down my hours, could you cut down my load. Like I now cut down what I have to do and I'm not afraid of anything or anybody. So I do it automatically at my own pace". (Anna)

Relearning. Six of the informants weren't offered a cardiac rehabilitation program. Some did not feel the need for it, given their circumstances.

> "I don't think it would be particularly useful to me. I do better with myself than most people do. I've got alot of self-awareness. And nobody knows me as well as I know myself". (Ruth)

> "I'm not really at a loss really. Well they don't know what caused it so, if it happens again then I might, but as he said it might never happen again. So

> I know it's there and I know it's available and I know it's a big help for many people. But whether my little heart attack warrants it, that's my choice". (Rose)

> "No. I heard about it on TV the other day but I didn't think that I wanted to head into that. I didn't feel that my case was serious enough. I don't really figure I have any serious heart problem. I asked my doctor whether I would be a candidate for another heart attack and he didn't think so. I think if it had amounted to open heart surgery or someting really serious I probably would have but I didn't consider I was in that bracket". (Pearl)

The ones that were involved in a rehabilitation program found the information regarding diet, exercise, and stress reduction most useful. The merits of a group environment were most strongly recommended by women who had worked outside the home in group situations. One woman appreciated same sex and age group classes so that they could compare their concerns.

> "I think I was the oldest. It didn't bother me because I was used to being in the working world and I was used to having all the young kids around...You talk to each other and kinda laugh, it's different from being in a room all by yourself and doing it. I've worked all my life with a bunch. I've always worked together as a group. You feel just more at home doing things together instead of being all alone". (Betty)

> "In the second phase there were quite a few women. They are all very nice We always have something to say to one another. Maybe the topic is a little different but we're still all women and we all fall into the same category. We kind of kibbitz one another a little bit, we compare thoughts and ideas". (Anna)

They compared themselves to others in a similar situation. Their goals were now obtainable as they witnessed the progress of others and their subsequent success. This motivated them and gave them the confidence to pursue their goals. They could also gauge their progress in relation to the progress of others. The reassurance by healthcare professionals reduced their uncertainty and enabled them to have confidence in their abilities beyond the walls of the rehabilitation

clinic.

> "you are comforted to know you are not alone, you are lucky it waited 70 years before it hit you". (Betty)

> "Although we were in one group to start with but once we started in the exercise room there was people of different levels: starting halfways through towards the end. I liked that you were there for the same reason but you were at different stages of rehab. They are doing good, I'll be able to... You can see the different stages and the improvement that has taken place each time you go there. That's so essential. I didn't feel uncomfortable at any time". (Betty)

> "The reassurances are there, you heart will mend, you've got alot of years left in you, it kind of gives you the extra hope. Maybe they're trying to make me feel good. But there must be something to it, they're spending all this money and time to tell you this. It makes you feel good, when they take your BP and "everything is fine, you're doing great. You do get a lift".(Anna)

Two informants commented that they were being treated like children in the program, while one woman wished that she could reschedule classes that she was unable to attend. The informant who had the greatest struggle with the new restrictions in her life offered the most criticism.

> "I'm hating it, there is no humour at all. I don't know where to begin it depresses me terribly. I tell myself you stupid idiot, you've got free will, you don't have to go.Tell them you're not coming anymore. I'm suppose to be getting better raising my resistance and I suppose I should (go)...I lecture about that. Nobody will tell you anything...The whole thing is built on negatives she ran down all my favourite foods...I met a lady in the change room about my age and I asked "Do you ever get depressed? I certainly do and I've never had such low spirits, nobody is talking about that, nobody has mentioned that". (Shirley)

Moving on With the Change

In the final phase, **moving on with the change**, two women's symptoms reccurred resulting in their progress being interrupted due to being readmitted to

the hospital. Otherwise, the women were able to put the limitations caused by the MI behind them and accept their new lifestyles. The only exception was one informant who continues to experience symptoms and is essentially "on hold" until her present physical condition can be resolved. The women realized some adjustments had to be made in their lives. The implications that having had a MI holds for future were explored, the obstacles that lie ahead were identified. and plans were made. They had a positive attitude in that they would be able to successfully adjust to the changes brought about by the MI. The future was something to look forward to and not to be feared. The informants were back in control of their lives. Although the possibility of having another MI was there, it's impending occurrence was not the focus of these women's lives.

Getting on with life. The relationships of daughters and husbands who were directly involved in caring for these women changed as the women resumed their lives. As the women were able to do more for themselves, caregivers relinquished their caregiving /household duties to resume their previous roles. The women regained control over their decisions and actions.

> "We are both weaning ourselves back to our former status so to speak". (Ruth)

The women examined their previous activities in light of their new physical limitations. They proceeded to make plans for the future. The activites the women had anticipated as obstacles were voluntarily given up.

> "Our recreation has been square dancing and I don't feel I can do that anymore. It's (MI) sort of changed the lifestyle a bit, like I lawn bowl too in the summer, and I feel that some of these things now, I just have to say

> that's it... Now I'm going to have to look for some different avenues, different activities. The seniors groups do alot for seniors". (Pearl)

Driving, snow shovelling, and long trips alone were also identified as activities under consideration. A change of residence has been contemplated by four of the women due to stairs, yard work, and solitude. These concessions, as one woman commented, "are not only a measure of age but of general intelligence", given the situation.

> "I'm not as fast as I used to be but yet I'm still a hell of a lot faster than a lot of people. Come on you're not doing too badly. I am 83 years old, let's not kid ourselves. I also recognize I don't think I'm going to drive anymore. I am proud of that fact. I have enough sense to realize that maybe that part of my life is over... I'm handling it. And that how I know I am growing old gracefully. Nobody has to tell me this. I realized at first I was scared. I thought I've lost alot you know neurological and intellectual. And I'm saying now what the hell, you're not as quick as you used to be and why push it". (Ruth)

The lifestlyes changes proposed by the healthcare professionals were incorporated in the lives of the women once they were physically able. Several women noted that they were more conservative in their choice and amount of activity. Only one informant explored alternative medical treatments. She tried Chelation but had to discontinue the treatment when her blood pressure became elevated.

> "I've been walking at Southgate. I go there first thing in the morning and have coffee with the gang afterwards. I wasn't a walker before". (Betty)

One-half of the women talked about the uncertainty the MI had forced them to live with, in particular, the inability to recognize angina and the unknown activities which may lead to another MI.

> "The thing is you don't know when you're having indigestion and when you're having a heart attack again and that frightened me I thought I don't want to turn into one of these neurotic people". (Shirley)

> "I don't know. I don't know what is going to upset me and trigger it off". Helen)

> "You never really lose the little bit of fear, it's always there but you try not to think about it. You know exactly what you would do if it came again and...I try not to think about it really". (Rose)

The only women who voiced anger during this phase were the ones that were misdiagnosed by their family doctors.

> "But I am a little bitter with my doctors. I saw three of them and especially this highly qualified specialist. Could he not have said "let's take extra precaution, here's an older lady, she's had high blood pressure, she's had cholestrol, I'm going to look into it more. Why didn't he?". (Anna)

In contrast, there were three women in the study that experienced symptoms (elevated blood pressure, arrthymias and angina) requiring medical attention in the emergency department. Out of the 11 women, two have reinfarcted which meant readmission to the hospital and subsequent coronary angioplasty. When their symptoms reccurred, they quickly went to the emergency department, as they recognized the familiar signs.

> "Same old thing driven up to emergency and back we go again. And that was only one week later. It was in the evening. I had just a mild sort of pain. And then the process started again. When I got to emergency, the same things happened. I was given the clot busting drug, the same stuff again. And they said how lovely to see you again but this isn't good enough. And so I was back in the same situation". (Shirley)

Two other women experienced recurrent symptoms. The affect the MI has had on their lives was succinctly stated by one informant.

> "It has stopped my life". (Eileen)

The informants lives were filled with uncertainty due to the unresolved nature of their condition. They had a sense of "being on hold", one woman searched for an alternative diagnosis in hope of finding an answer to her present condition.

> "I'm willing to go and have a third angioplasty but I don't know, I think I must have something else wrong with me because I am going downhill so fast. I think I have got diabetes or liver trouble or pancreas trouble because I don't know of any trouble but I can't help it. But it's all tied together". (Eileen)

At this time, comparing their experiences with others was a strategy used by one informant to help her cope with the uncertainty. This helped the women make sense of her present circumstances and it also gave her hope for the future.

> "I have a dear friend who's been through what I have...they had to do open heart and it really encourages me because she is really great. Her personality has changed. She's relaxed and she looks great, she's doing everything. It's very positive when I look at her, she looks great, she looks 10 years younger. Yes it's changed (my outlook) I've always said "No way would I have open heart surgery", it's just ridiculous because I figure when you've lived 80 years, you've had a long life and something else is going to go wrong. But then I look at her I think, well I don't know because she is living life to the fullest now, far more than she did the last five years". (Eileen)

The informants in this situation were unable to discuss long term plans for the future.

> "I live each day as it comes....Now that I am almost 80 and I've got, out of the blue knocked down, do I complain or do I just do the best I can. It's very hard for me. I'm going to just carry on and try to make the best of everyday and everything is hunky dory". (Eileen)

One woman fantasized about the things she would like to see improve in her daily life.

> "I just want to be able to go downstairs and have a shower and do the washing and I love my home and I want to be able to get out the vacuum cleaner and order my husband around. I fully intend to get on with my life. If I decided to go (open heart surgery), but then there's such a long waiting list that by the time they get to my turn it's too late". (Eileen)

Despite an uncertain future, these women are survivors and their attitudes reflect this fighting spirit. They have sucessfully coped with and adapted to many changes in their past namely the death of spouses, children, and friends.

> "But I'm an optimist and I'm hoping that I'm going to fight this thing. I've got a very strong will. And I'm not used to being sick. I've lived with a radical masectomy since 1958. And when you've lived with a radical masectomy that took off everything but skin and bones that they don't do anymore and every time you wash, everytime you move your arm hurts or you ache or swell or whatever, you get pretty tough". (Eileen)

> "I've always bounced back from difficult things and I"ve pursued, I'll do it again". (Shirley)

The most frustration was voiced from the women whose unstable condition did not permit them to resume their previous roles.

> "But like today, he didn't take the dog for a walk yesterday and I got up twice and let her out because she hadn't done her thing. Those are the little things that are-it's not a priority with him but with me stuck in the house you see the other end. I can't walk her but I can go out and play in the yard with her before I got sick so that I took care of those things. And here I'm stuck". (Eileen)

Looking ahead. For several informants their outlook on life changed.

> "It has changed me alright, it sort of scared me in a way. Shook me up, that time is so important. The changes that time brings about, give time a chance. You don't need a lot of medicine, you know there wasn't a particular medicine that I needed. Ahh, give yourself a break, let the body heal itself". (Ruth)

There was a greater awareness of the things they had yet to do in life. A sense of urgency was found in that they reprioritized things they wanted to get

accomplished. They no longer felt that they could put things off, for they realized their time was limited.

> "It's a scare and it's a wake-up call. Hey, you're older than you think you are, probably and a lot more can go wrong than you think. Look how fast this happened, you can't, like there's a lot of things that I've been going to do over the years like different albums and write a little history about the family and things like that. I kept thinking next year, next year. Now I'm thinking I better get down to business and do this right away because...". (Anna)

> "At 83, you wonder, how much longer you are going to be around, without anything the matter. Then this happens. You think, well I guess the time's cut down. Now I'm concerned about how much time I've got left. I want to get my house in order". (Helen)

The MI had forced most of the informants to review their lives. This reflection enabled them to put the MI into perspective. They accepted their lives would never be the same.

> "I was so relieved that it wasn't a bad heart attack and that I had to curb what activities, I'm just so thankful that I can't be depressed about it". (Rose)

> "I think we've (directed towards husband) had more than our share of health. Yeah and I feel fine as a result of that". (Evelyn)

> "I'm thankful for everything. For our home, for my husband, for our family, for our financial situation and so on. We have no worries. I'm thankful that the heart attack wasn't more serious than it was because I can live with it you know and I think it's important to accept certain changes and just go on from there". (Pearl)

Their advice for other elderly women who have had a MI centered around accessing the emergency department promptly with suspicious symptoms and doing the best they can in learning to live with their MI.

CHAPTER FIVE

Discussion of Findings

The purpose of this study was to explore the experience of having a myocardial infarction (MI) as it was perceived by elderly women. The sample consisted of 11 elderly women with a first MI. The findings of this study revealed a process comprised of five interrelated phases: **searching for a diagnosis, being hit with the reality, discovering the nature of the change, adjusting to the change, and moving on with the change**. The strategies these women used during this process included, *being in control*, *managing uncertainty*, *making sense*, *being independent*, and *sheltering others*. Their behavior was directed toward integrating the cognitive, physical, and emotional changes of the MI into their lives. Therefore, the core variable which emerged from this study was ***living with change.***

The findings of this study will be discussed first in light of existing research findings, particularly literature addressing the process that women experience following MI. In order to discover the uniqueness of this cohort, a comparison and contrasting of current knowledge is neccesary. It is therefore important to be aware, that as very little research has been done on elderly women, the studies examined are comprised of males and young females. The limitations of this study will also be presented and the implications of the findings for nursing practice and research are discussed.

Living with Change

In this study it was found that the core variable, ***living with change***, was

central to the process of having a myocardial infarction. Successful resolution of the adjustment process depends upon the elderly woman's ability to live with the resultant change. Aging is accompanied by a host of changes within the person and in their environment. The nature and extent of these changes has been extensively studied (Rowe & Kahn, 1987). Old age is a time of many challenges which require tremendous creativity and courage to contend with the ongoing process of change (Thompson,1992). The ability of older people to adapt to change varies greatly. Successful aging does entail coping with many changes throughout the course of a lifetime. Namely, the experience of one's family of origin, education, career, marriage, birth and raising of children, health status, grandchildren, and widowhood. In general, a person's ability to cope with change depends upon the degree to which he or she feels that the world is comprehensible, manageable, and meaningful (Antonovsky, 1989). Life is comprehensible to an individual who is aware of the change happening to them, but this does not necessarily imply acceptance. When the person views life as manageable, they have a sense that resources will be available at some time to manage the change. When the person senses that the change will at some time be integrated into their life and aspects of it may be used for future coping, the change then becomes meaningful. Personal resources such as support networks, skills and finances affect the individual's ability to cope with change.

Flexibility and adaptability were identified as critical personality dimensions to coping with change in life (Solomon & Peterson, 1994). Together

they are key in holding, what in cognitive theory is called, a 'positive mind set'. The findings from one study suggests that women have managed to cope with their lives by maintaining a positive attitude, valuing hard work, persevering, and being able to enjoy life, one day at a time (Whitbourne & Powers,1994). The elderly women in several studies accepted change as part of life's reality; they coped with changes as they came along. They believed in maintaining a positive outlook, keeping busy, and looking to the future (Laferriere & Hamel- Bissell, 1994; Futrell, Wondolowski, & Mitchell, 1993). Their daily activities gave them a reason for being and brought meaning to their lives. The ability to partake in valued activities provided them with a sense of control over their lives. The importance of close relationships with family and friends has also been noted (Strawbridge, Cohen, Shema, & Kaplan, 1996). It was proposed, in one study, that the involvement with others was a strategy for dealing with changes in later life (Keller, Leventhal, & Larson, 1989).

Researchers have attempted to understand elderly women's ability to adapt to change by utilizing a variety of conceptual perspectives. Concepts such as self-efficacy (Bandura, 1997), inner strength ((Miller, 1986; Moloney, 1995), hardiness (Kobasa, 1979), and resiliency (Wagnild & Young, 1990) have emerged as possible explanations. Rather than discuss each of these concepts in their entirety, they will be discussed in relation to the dimensions of change that emerged in this study.

Moving Through the Phases of Living with Change

In the first phase, **searching for a diagnosis**, the psychosocial process the

women underwent was consistent with findings in the literature. The strategies they used have been documented by Cowie (1976), Levy (1981), Johnson and Morse (1990), King and Jensen, (1994), Dempsey, Dracup, and Moser (1995), and Dracup, Moser, Eisenberg, Meischke, Alonzo, and Braslow, (1995). The latter study examined this process in women and determined that the informants used psychological control, which is the belief that one has the power to influence outcomes. The women's desire to maintain control over themselves and their environment was a means of reducing the uncertainty they were experiencing. Research into psychological control has determined that when people feel they can control adversive events, they cope better with those events (Taylor, Wayment, & Collins, 1993).

The women in this study acknowledged that they felt a change had occurred within their bodies (*becoming aware),* but they did not recognize the symptoms they were experiencing as serious enough to merit medical attention. Trying to the make sense of the symptoms (*diagnosing the self*) was done by a trial and error approach, in an attempt to alleviate them, and/or by self-medication with past proven remedies (*managing symptoms*).

As the women's symptoms continued or increased in severity they sought lay advice, which resulted in seeking medical treatment (*seeking help*). Johnson and Morse (1990) and Dempsey et al.(1995) identified the women's attempts as maintaining control, and their decision to seek treatment involved the relinquishing of control. Several factors have been identified in the literature as

contributing to the women's delay in seeking care (Dempsey et al.,1995). These women did not perceive their symptoms as life threatening. This is a direct consequence of their knowledge of cardiac disease, for they had no previous experience of cardiac disease and were not aware of the MI symptoms women experience (Warner, 1995; Moser, 1997). Misconceptions about symptoms was a factor for one of the women in this study, who delayed the longest, for she had the belief that one would lose consciousness when having a MI. As past experiences were used by the women to make sense of the change, most of them attributed their symptoms to indigestion. Their 'wait and see' attitude in regards to their symptoms also contributed, and is not unique, to the participants in this study.

The women sheltered others by not asking for advice from family until they perceived their symptoms to be out of control. Also, for those who symptoms after midnight, they waited till morning before contacting anyone. The women put the feelings of others over their feelings of uncertainty (about their symptoms). The women not wanting to impose upon others is consistent with findings in other studies examining this process in women (Dempsey et al.,1995; Varvaro,1993). The delay of older women in seeking medical attention has been recognized in the literature for some time (Moss, et al., 1969; Turi et al.,1986; Weaver et al.,1996; Gurwitz et al., 1997). Although the incidence of the misdiagnosing of women's symptoms by family physicians has not been studied directly, the experience of the women in this study would lead one to believe that this may also be a factor in the delay of appropriate treatment.

During the **being hit with the reality** phase, the women disengage

themselves from the events surrounding their admission to the hospital to maintain a sense of control (*verifying the symptoms*). This distancing behavior is not unique to women (Cowie, 1976; Johnson et al.1990). According to Blumer's symbolic interactionist perspective, humans must first assign meaning to an experience before they can respond to change behaviorally (Blumer, 1969). Developing a personal interpretion of the MI entails making sense of the event. The women in this study searched for meaning by thinking about possible reasons for their MI (*reflecting back)*. The womens' efforts focused on ways to cognitively define the meaning (or make sense) of the change so that they could regain a sense of control over their lives. Their struggle was to put the change in perspective so that the change was perceived to be manageable (Fife, 1994). The personal habits most frequently mentioned in this study were smoking and a stressful life. The women were not aware of their own personal risks factors, notably, physical inactivity, and hypertension. Their level of knowledge about the causes of coronary artery disease concurs with recent research which examined the perceptions of men (Zerwic, King, & Wlasowicz, 1997). Through the search for meaning, several women expressed feelings of anger and guilt at having caused the MI. The searching for an explanation, early in the process of recovery, for the women in this study is consistent with findings in other studies (Frazier & Garvin,1996; Fleury, Kimbrell, & Kruszewski, 1995; King & Jensen, 1994; Johnson & Morse 1990; Mullen, 1978). Although it has been postulated that adaptation to change is not possible without causal analysis, several recent studies

which have examined myocardial infarction patients have failed to support this (Jacobsen, Lowery, & McCauley, 1992; DuCette & Keane, 1984).

During the phase, **discovering the nature of the change**, the women experienced great uncertainty, as they did not know what to expect in regards to the severity of their MI and the success of treatment. The women in this study had limited experience with previous hospitalizations. High levels of anxiety have been reported in individuals with limited hospital admissions, younger age, higher education, and female sex (DeWolfe, Barrell, & Cummings,1966; Wilson-Barnett & Carrigy, 1978). The hospital environment and the activities of the healthcare workers did not make sense to the women. This resulted in *being vulnerable*, for they felt they had lost control. One study identified a circular pattern, in that uncertainty contributes to the vulnerability, and the vulnerability heightens the uncertainty (Kirsch, 1983). The women in this study relinquished ownership over their bodies, temporarily, and became the property of healthcare professionals. Their feelings of extreme vulnerability was not perceived by physicians and nurses, as the women commented on how they went about their business of providing physical care without regard for the psychological trauma they were experiencing. Several women commented on how they experienced a loss of identity as a result. The women did not feel their usual connectedness with other human beings (*relating to others*). Other people did not know what they were experiencing, nor did the women communicate to them what they felt. This made communication with healthcare professionals problematic, which only added to the women's uncertainty.

Behavioral independence was an issue for several informants; they wanted to do things for themselves. This decreased their uncertainty about their condition and increased their feelings of control. Several women were more concerned about their role as a patient, knowing what was expected of them, and wanting to do things right as a patient. In general, the women wanted information but were passive in how they obtained it. For some time, the passiveness and compliance of women in patient-male doctor relationships has been recognized in the literature (Fields, Savard, & Epstein,1993). One woman in this study related it to generational differences. But more research into the relationship is necessary before any conclusions can be drawn. The several women who reinfarcted, which meant subsequent admissions to the hospital, struggled for decisional control over treatments and diagnostic tests. The strategies the women in this study exercised to obtain control while in the hospital have been documented in the literature (Dennis, 1987).

As a result of surviving their MI, the women considered the possiblity of their own death (*facing death*) which has been identified in several studies (Johnson & Morse, 1990; King & Jensen, 1994). This caused the women to review their lives, which resulted in their being thankful for their good fortune and healthy long life. The lack of death anxiety these women experienced has been recognized to be related to advanced psychosocial maturity and age (Rasmussen & Brems, 1996). The women relied on their families to shelter them during this phase. This was done by the women monitoring their progress,

obtaining information, and dealing with healthcare professionals. Studies suggest that the presence of social support after a cardiac event facilitates recovery, in that individuals experience less uncertainty and demonstrate fewer symptoms of psychological stress (Mishel, 1990; Moser, 1994). Consistent with the findings in several other studies, the women departed from the hospital without having information about treatment, medications, and physical activity restrictions (Thomas, 1994). They had a poor understanding of what the diagnosis meant to their way of life in general. This impeded the women's development of cognitive control, for they continued to deal with uncertainty.

Once home, the women were faced with **adjusting to the change**. The change in their health status caused uncertainty about the recovery process and the future impact on the women's lives. High levels of uncertainty are directly related to high levels of emotional distress during the transition from hospital to home and return to self-care following a myocardial infarction (Christman, McConnell, Webster, Schmitt, & Ries,1988). The women were all relieved and looking forward to returning home. The meaning of 'home' for older women has been explored in the literature and was found to represent security, for the women had control over their living space in an everchanging world (Moloney,1997). This in turn contributed to their sense of inner strength. Older women in a recent study were documented as having higher levels of fatigue following a myocardial infarction than younger women (Varvaro, Zullo, & Robertson, 1996). For the women in this study, the fatigue they experienced necessitated *setting limitations*. This did not appear to have caused emotional distress, although this has been

documented in the literature as a common reaction two weeks following hospital discharge in younger women (MacKenzie, 1993). The informants also limited the number of changes they were willing to make in their lives at a time. This was a reflection of their exercising control over the change.

The MI affected the personal relationships of the women as family members as they were also forced to face the meaning of the change. The women acknowledged the psychological and physical toll their MI had taken on their family. The outcomes of *depending on others* were both positive and negative for the women in this study. Several women commented on the gratefulness they had for having their husbands as emotional and physical support. Widowed women limited the type of assistance they would allow their daughters to give (sheltering others). As they attempted to regain their independence, their daughters restricted activities. This was a time of struggle for the women, as they were now being sheltered by their loved ones. One study which examined social support in older women with heart disease concluded that the women, although they preferred not to receive assistance from others, felt comfortable and satisfied with the support received from family (Friedman, 1993). The finding that daughters constituted the primary support of widowed women is concurrent with the findings of other studies. This is thought to be due to the socialization of women to supporting each other during times of need (Riegel & Gocka, 1995).

A significant aspect of coping with change involves attempting to regain a feeling of mastery over one's life (Fife, 1994). The women engaged in *testing*

themselves in terms of their ability to perform household duties. This is a process that has been cited in the literature as a means to reduce uncertainty (Selder, 1989), and has been identified in several studies involving women following a MI and cardiac surgery (Boogard, 1984; Johnson & Morse, 1990; Varvaro, 1993; King & Jensen, 1994). Selder (1988) notes that in competency testing, an individual chooses a highly valued activity they were able to perform prior to the change event. Success in repeating the activity leads to confidence in one's ability, increased independence, and reduced uncertainty. Concurrent with existing research, the women in this study were able to perform valued household duties, but had changed in their expectations with regards to the frequency and time frame in which they completed the tasks (MacKenzie, 1993). The women found strength in their ability to perform the everyday tasks with which they had tested themselves. The changes they had made to adapt, did not distress them. Several women made reference to being retired as less stressful, for they had the time to make decisions regarding the resumption of their activities. Without the pressure of having to return to work and living up to the expectations of co-workers, the women felt they were in control of their recovery.

Several personal qualities have been identified in the literature as predictors to successful adjustment to change. Elderly women, in one study, relied on inner strength to cope with change (Moloney, 1995). The variation in the inner strength of women was found to be dependent upon their life experiences (Miller, 1986). Women perceived themselves as 'being strong' based on these experiences. Contary to common belief, it was not the crisis events in their lives

that fostered the development of inner strength, but everyday events and close relationships with people, which enabled them to find strength in themselves. Rose (1990) articulated inner strength as " vulnerability, authentic interrelating, using humor, being true to yourself, centering and balancing, self-awareness, being quiet and calm, knowing and experiencing capabilities, and of seeing and understanding the whole of situations while remaining cognizant of the intricate compounding factors"(p.68). The women in this study demonstrated many of the traits described as 'inner strength', but of particular note, was their commitment and willingness to participate in the process of change.

Self-efficacy has been researched in recovering myocardial infarction patients, with data indicating that a high perception of self-efficacy greatly influences recovery (*relearning).* Self-efficacy is the belief in personal capability and the effort one puts forth to accomplish certain outcomes (Bandura, 1977). It is promoted by performance accomplishments, vicarious experience, verbal persuasion, and emotional arousal. For elderly women who have successfully managed change, it can be said that their success in past experiences leads them to the perception that they will be able to overcome the challenges posed in the next change. One study examined women following a MI and found that the presence of self-efficacy was the main contributer to perceived rehabilitation success (Budd, 1992). Another study found that older women with high self-efficacy had better health and a lower health risk in the following behaviors: dietary fat intake, weight control, alcohol intake, and smoking (Grembowski,

Patrick, Diehr, Durham, Beresford, Kay, & Hecht, 1993). High self-efficacy has also been associated with control, in that an individual believes they are in control of their health and have the ability to change or maintain their health behavior as needed (Waller & Bates, 1991).

Although only six women in this study were enrolled in formal cardiac rehabilitation programs, all under took life-style changes. These women demonstrated self-efficacy as they had learned their capabilities of making change from past experience. Also, for those who were enrolled in formal programs, motivation and confidence in their abilities was obtained from watching others as they progressed and improved. Healthcare professionals provided reassurance which transcended the physical setting, as the women were more confident in their physical abilties once home. The women found the information they obtained in the program useful. They enjoyed the group format, citing that same sex and age classes enabled them to compare their concerns. Disadvantages of the rehabilitation program were the inability to address individual needs and inflexible scheduling. Several studies have examined the preferences of women in cardiac rehabilitaion programs and identified joint goal setting, the provision of a range of exercises choices, emotional support from healthcare professionals, and social interaction as important (Moore, 1996; Moore & Kramer, 1996).

The final phase entails the women **moving on with the change**. Several studies have differentiated the experience of a MI and coronary bypass surgery in younger and older women (Varvaro,1993; King & Jensen, 1994). Older women engaged in more adaptive health behavior and had higher perceptions of life

satisfaction following their MI when compared to younger women (Varvaro,1993). One researcher attributes the higher quality of life, to the occurrence of the MI, which forces women to evaluate their lives and make the required lifestyle changes (Wingate, 1995). Older women maybe more sucessful at the readjusting of priorities because they are not employed outside the home and have reduced family responsibilties (especially widowed women) when compared to younger women. King and Jensen (1994) found that the older women felt subjectively better and returned to a higher level of functioning postoperatively. These findings are consistent with the results of this study, for the older women maintained a positive attitude and regarded the change as a challenge. They accepted the change and had an overall opinion that the worst was past and that steady progress towards returning to as normal a life as possible was to be expected. Acceptance had been found as a means by which older individuals address areas of concern (Shapiro, Sandman, Grossman, & Grossman, 1995).

The women in this study focused their energies on their daily lives (*getting on with life).* Overall, they did not worry about the future in light of the change. The meaning of life threatening illness has been studied in women who have cancer and it was also suggested that the change was less difficult for the elderly in regards to how it affected them and their future (Fife, 1994). One researcher hypothesized that older women do not worry about the past because they have accepted their mortality (Friedman, 1993). But the focusing on daily

living, may also be regarded as one way to reduce uncertainty for individuals who have experienced major changes (Selder, 1989).

In one study, the concept of resiliency represented the emotional stamina and courage exhibited by elderly women as they sucessfully adjusted to a recent major loss (Wagnild & Young, 1990). Flexibility and adaptability are inherent in resilience as new challenges are faced with strength and perseverance. The women in this study exhibited this ability in that they were able to persevere, believe in themselves and their capabilities, and put the change into perspective. Studies exploring hardiness have also contributed to knowledge about coping with change as one ages. Hardy individuals are hypothesized to have the greatest control over what occurs in their lives. Hardiness consists of the desire to remain active in life events, the belief one has influence over the course of life events, and the belief that change is normal and has the potential as a stimulus for growth (Kobasa, 1979). The elderly women in this study, demonstrated hardiness in that the change itself was regarded as an opportunity for growth and life continued to have meaning for them.

The impact of the change was minimized by the women, for the MI was viewed as expected, considering their age and that they had been healthy all their lives. As a consequence, the change did not evoke the emotional responses documented in the literature as being typical for women. Recent studies have shown that emotional distress is greater in middleaged women (Holahan, Moos, Holhan, & Brennan, 1995; King & Jensen,1994;Varvaro,1993). But the exception in this study were the women who experienced complications and reinfarctions.

The recurrence of illness forced the women to be aware of the chronic nature of the underlying disease. These informants were faced with the fact that lifestyle modifications does not guararntee that they will not have another myocardial infarction, thus they must continue to deal with uncertainty. The women who were unable to recognize angina as a trigger event also faced living their lives in uncertainty. Difficulty in interpretting and assigning meaning to illness cues which are vague and unclear has been acknowledged as contributing to higher levels of distress (Webster & Christman,1988). Despite this uncertainty, the women in this study were survivors and their attitudes reflect this spirit. Survival instinct was identified in one study, as the drive to keep on going, even if it meant simply going through the motions (Wagnild et al.,1995). The loss these women faced as they began to experience the necessity of learning to live with the limitations of the MI required strength and courage on their part to make the necessary changes in their lives.

The women in *looking ahead* were able to put their difficulties behind them, to look forward and move on. They no longer took things for granted in their lives. The overall appreciation for making the most of the time they had left was an important element in their decision making. In *getting on with life* they relinquished activities they felt they could no longer do. This behavior has been labelled as "cutting back" by Mullen (1978), which suggests a balancing occurs between cutting back and maintaining a certain quality of life after a MI. The women examined their lives and repriorized the things they felt they had yet to do

in life.

The women in this study defined 'health' as being able to the things they wanted to do. They had a sense of achievement or purpose in life through their activities. The experience of older people creating health with a chronic illness has been described in the literature (McWilliam, Stewart, Brown, Desai, & Coderre, 1996). The process they identified encompassed four components: fighting and struggling, resigning oneself, creatively balancing, and acccepting. The women's experiences in this study are comparable in that they struggled with the health care system, balancing 'want to do' and 'can do', and learning to live with the change in their health. The strategies that individuals used to manage day to day challenges in the McWilliam, Stewart, Brown, Desai, and Coderre (1996) study were: creating a sense of purpose, consciously trying to be positive, drawing on personal/spousal patterning, setting and striving for goals, learning about self, comparing self favorably to others, taking a step at a time, maintaining control, and reframing expectations of life and self. The similarities can be readily seen between this group of individuals and the women in this study.

Together, the characteristics of inner strength, hardiness, resiliency, and self-efficacy blended with an adequate support system have enabled women in this study to be successful survivors of change. Time is necessary for these women to come to terms with the loss of a way of being and to learn to live with the change.

Limitations of the Study

The data for this study were obtained from a small sample of individuals. The resultant findings of this study do not represent the experiences of any one individual, but represent a composite understanding of the process of **living with change** which the informants of this study experienced. As such, the findings are only relevant to informants with the same characteristics as the participants in this study. This sample had similar economic, ethnic, cultural, and educative backgrounds. It is possible that attitudes and social supports may vary with different education and cultural groups.

A study of this nature permits theoretical generalizability, which Glaser (1978) indicated is present when a emergent theory has 'fit' and 'grab'. When reference is made to the 'fit' of a resultant theory, it denotes its groundedness in the data. When using interviewing as the primary method of data collection, a possible limitation is the interactive effect the researcher can have on the informants'response (Chenitz & Swanson, 1986). Because of this, the researcher could influence the response of the informants. Also, a researcher may focus on eliciting responses from informants that agree with the researchers ready-made explanations to the phenomena (Miles & Huberman, 1994). To minimize the potential effect of the researcher, theoretical sampling was utilized. Also as some of the informants were initially uncomfortable with discussing their experiences with the researcher, a relaxed atmosphere was created by the researcher getting aquainted in the pre-interview.

Implications of the Findings

Healthcare professionals need to be educated regarding gender differences all aspects of cardiac disease. They need to be aware that gaps exist in the understanding of women's cardiovascular health as well as the experiences of the elderly in the health care system. For nurses who care for elderly women with a MI, the understanding of the meaning of the MI experience from the women's perspective enables nurses to individualize the care of elderly women. This awareness may change how nurses view elderly women. Understanding the possibility that older women perceive themselves as strong instead of as powerless, changes the way in which nurses assist elderly women. By sharing their experience, the women help nurses to recognize that personal strength and development are possible within the process of ***living with change.*** Attention to the management of limitations is warranted, but it is merely one component of elderly womans' lives. Nurses should focus on elderly women's strengths, namely drawing upon their own resources and determination, thus creating alternative solutions to realizing their goals and responding positively to the challenges of change. The nurses' acknowledgement of the women's strength enables elderly women to visualize themselves as strong in a way that promotes their health. As the number of aged persons in our society increases, seeing beyond stereotypes of the aged and appreciating and honoring the strength of older women, are critical if nurses are to be effective in caring for elderly women and facilitating changes in health care policy.

Women need to be educated about all aspects of coronary artery disease.

Foremost, they should be told that they are at risk for developing this disease. The prevalence of CAD in women, the identification of risk factors, and strategies for risk reduction need to be addressed. Women should be aware of the specific symptomatology and the presentation of a MI in women. The education should be targeted to all age groups, not just elderly women. Middle-aged women should be aware because they are relied upon for health advice by women in the older age group. The education of young women needs to begin now, to prevent high risk behaviors. Risk factors, including smoking, which cause greater mortality from coronary artery disease than from lung cancer, need to be addressed. Smoking cessation programs tailored toward women need to be researched and developed for it has been established that women are more likely to resume the smoking habit after quitting than men (Moser, 1997).

Education programs should be available at several locations in the community, for many elderly women have limited access because of other chronic illnesses (eg. arthritis) and limited resources for transportation. Programs should be held at various times in the day to facilitate their attendance. Although costly, the merits of television and radio advertisements should be considered. Women have to be central to this education in that voices and pictures need to be utilized in such a way that women recognize heart disease as a women's health problem.

Education programs must also address the psychosocial processes. Women need to be told that when experiencing symptoms they will likely deny

the seriousness of their condition. If women are told about the thoughts and feelings that women in this study and others have experienced, they will be more likely to recognize and move more quickly towards seeking medical attention. The 'not wanting to impose on others' tendency also needs to be discussed, for women need to know the consequences of this behavior.

The reduced hospital stay for many patients often limits the amount and type of information nurses can provide to patients. Nurses should focus on providing relevant patient education for elderly women emphasizing the correction of misconceptions, and assisting them in understanding what has happened to them. The environment and the women's physical state may make effective teaching difficult. Fatigue management and the appropriate resumption of household activity should be aspects of teaching for elderly women before being discharged from hospital. This should be done so that they can gauge their progress more realistically. Information on how other elderly women have coped and encouragement to develop their own mechanisms should also be given. Information the women need and want should be available in the form of clear, concise take home written material (at an appropriate grade level for this age group with larger font) so the women can review it once home. Although the timing of the teaching sessions is important, follow up telephone calls or home visits may be used to reinforce learning.

Medication, dietary, exercise, and activity (gender-age specific) guidelines were amoung several information deficits the women in this study made reference to. Many women left the hospital without clarification on

symptomatology of women with CHD. Although this information can be obtained by calling the Heart and Stroke Foundation, it should be available to these women upon discharge. This avenue needs serious consideration because of the fact that many of the women in this age group do not go into formal cardiac rehabilitation programs. The older age group may not be aware of the information that is available to them. Nurses should encourage elderly women to participate in cardiac rehabilitation and exercise programs after discharge to reach their optimal activity levels.

Limited research has shown that women have psychological and physical needs that are different from men following a MI. An awareness of elderly women's perception of experiences following a MI is essential to the development of rehabilitation programs which effectively address psychosocial adjustment and motivation in cardiovascular risk reduction in this cohort. Existing programs will have to examine their present format if they are to meet the needs of elderly women in the future. The women in this study were looking for a less formal-structured appproach. The ability to reschedule times for the older age group is important, for concurrent health problems impact their daily capabilities. The older women do not appear to enjoy a lecture format as they felt they were 'being treated like children'. Other suggestions which have appeared in the literature include: more emotional support from staff, a wider variety of exercise choices, and a longer program with more opportunities to socialize (Moore, 1996).

Aside from the development of individualized teaching programs for elderly female patients, the education needs of male spouses, and families of elderly women need to be addressed. It is neccesary to do further research related to the specfic needs of elderly women and cardiac rehabilitation if healthcare professionals are going to improve the compliance of elderly women attending cardiac rehabilitation programs.

The American Heart Association calls coronary artery disease in women "the silent epidemic". Future research must be done so further clarification into the basic biological differences between men and women and their impact on subsequent coronary artery disease can be ascertained. There is also a need for more comprehensive research in terms of the differences between younger and older women in regards to age specific health management of problems that women encounter following MI. As the findings of this study suggest, age may modify women's perceptions of themselves and their abilities to cope with effects of a MI.

Conclusion

The findings of this study represent the first time that the experience of elderly women who have had a MI has been delineated. Although numerous studies have been conducted into the adjustment process following an acute myocardial infarction, the findings have not specifically addressed this process in elderly women. Thus, the grounded theory method was utilized to describe the process the elderly women underwent. It was used to analyze transcriptions of data obtained through the use of open-ended, structured interviews. The method

allowed the researcher to continue concurrent data collection and data analysis until categories were saturated and the evolving theoretical framework fit the descriptions provided by the informants.

While much of what was found about this experience was substantiated by other research (studying both men and women), the findings of this study has begun to answer the question, "What are older women's (70+ years) perceptions of having a myocardial infarction? The core variable identified in the process of having a MI was ***living with change.*** The elderly women in this study struggled with the change caused by their MI. As they progressed through the five phases, they overcame new challenges by using a variety of strategies. They focused on *being in control*, *managing uncertainty*, *making sense*, *being independent*, and *sheltering others*.

The first phase, **searching for a diagnosis** involves the women becoming aware of their symptoms, diagnosing themselves, managing their symptoms, and seeking help. They are trying to make sense of their symptoms and their uncertainty grows as they struggle to maintain control over their bodies. Loss of control was evident as they entered the next phase, **being hit with the reality,** as they enter the hospital to obtain a diagnosis. Once verified, they react by distancing themselves cognitively as a means of maintaining a sense of control. They reflect back on their lives in an attempt to make sense of why the MI occurred as they strive to regain a sense of control.

The focus for the women in the third phase was **discovering the nature of**

the change. Once admitted to hospital, making sense through others was apparent. Their uncertainty and subsequent vulnerability was related to their perception of control as they struggled to cope with their diagnosis and unfamiliar environment. Perceived loss of identity and powerlessness was experienced by several women. Sheltering by family is evident throughout the hospitalization and discharge home.

The fourth and fifth phases of the process were highly related in that the ways in which the women were **adjusting to the change** in the fourth phase affected the manner in which the women were able to **move on with the change**. The process of adjustment involves setting limits, depending on others, testing themselves, and relearning for the women. A sense of personal control is redeveloped and uncertainty diminishes. Independence was regained as they tested themselves on past abilities. In the last phase, the informants had the perception that they were back in control of their lives.

The findings indicate elderly women experience uncertainty, a lack of control, trying to making sense, a fear of dependence, and a desire to shelter others. It was important that 'some good' was rationalized out of such a significant change for these women. Acceptance of the change was ongoing as the women created a new way of being in life and health. The women needed support in coping with the unpredictable nature of the change and with their own lack of situational control. The findings indicate that the reality of the women's experience cannot be ignored by nurses and that specific nursing interventions are needed to assist the elderly women during the process of ***living with change***.

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Appendix A

Information Sheet

Hello, my name is Bernice Sutherland. I am a graduate student in Nursing at the University of Alberta. I am doing a study to find what it is like for older women who have had a heart attack. By knowing what older women think and feel about this experience, nurses will be better able to plan for their recovery.

An average of three interviews may be required, probably lasting for 45 to 60 minutes. The interviews will take place at a time and place convenient to you. The interviews will be tape recorded and later typed. Questions will be asked about your experience of having a heart attack.

If you agree to participate in the study, I would like you to sign a consent form. You will be free to withdraw from the study by telling the researcher, either by saying so or putting it in writing. If you should decide to withdraw, the tape recording of your interview will be erased in your presence.

If you might be interested in participating, I will call you after you have left the hospital. I will at that time tell you more about the study. If you decide to participate, I will arrange a time with you to do the first interview. If you have any question or concerns about the study you may contact either myself or my supervisor at the number listed below.

Researcher:

Bernice Sutherland
MN Candidate
Faculty of Nursing
University of Alberta
Home Phone: 487-8609

Supervisor:

Dr. Louise Jensen
Associate Professor
Faculty of Nursing
University of Alberta
Phone: 492-6795

Appendix B

Informed Consent Form

Project Title: The Older Woman's Perceptions of Having a Myocardial Infarction

Researcher:

Bernice Sutherland
MN Candidate
Faculty of Nursing
University of Alberta
Home Phone: 487-8609

Supervisor:

Dr. Louise Jensen
Associate Professor
Faculty of Nursing
University of Alberta
Phone: 492-6795

The purpose of this study is to learn what it is like for older women who have had a heart attack. In this study, you will be asked questions about your experience.

Your participation in this study will involve the following:
- The researcher will interview you two to three times.
- The first interview will be done in person. The other interviews may be done by telephone.
- The interviews done in person will take place either in your home or at a mutually agreed upon place.
- An information sheet about yourself will be completed at the first interview.
- Each interview will last about one hour. This will depend on how tired you may feel. Your total time in the study will be under six hours.

All interviews will be tape recorded and typed later. Your name and any information that may identify you will be removed from the information sheet, audiotape, and typed interview. A code number will appear, which is only known to the researcher. Your consent and tape will be kept in separate locked files. The tapes will be destroyed seven years after the study is completed. Your consent form will be kept for at least five years. The tape may be used for further study after ethical approval has been obtained. Some of your comments may be used in the final report or in talks about the study. But your name or any material that may identify you will not be used.

Your participation in this study is your choice:

You may refuse to answer any question during an interview.
You may stop the interview at any point. You can withdraw from the study at any time by telling the researcher. The information you have given before your withdrawal will be used only with your permission.

If you decline permission, the researcher will destroy all interview recordings and transcripts.
You will be given the opportunity to ask Bernice Sutherland any questions you may have about the study. Any future questions or concerns about the study, you may call here at her number shown above.

There are no risks known to women participating in this study. You may not benefit from being in this study. However, you may find it helpful talking to the researcher about your experience. By particpating in this study, you may help other women who have had heart attacks.

I, _____, agree to participate as a volunteer in the above named study. I have a copy of this from to keep.

_____ _____
(Participant) (Date)

_____
(Researcher)

I would like to receive a summary of the results of the study.

Yes_____ No_____

Appendix C

Short Portable Mental Status Questionaire
(SPMSQ)

Eric Pfeiffer, M. D.

Instructions: Ask questions 1-10 in this list and record all answers. Ask question 4A only if patient does not have telephone. Record total number of errors based on ten questions.

+ / -

_____ 1. What is the date today? _____
Month Day Year

_____ 2. What day of the week is it? _____

_____ 3. What is the name of this place? _____

_____ 4. What is your telephone number ? _____

_____ 4a. What is your street address? _____
(Ask only if patient does not have a phone)

_____ 5. How old are you? _____

_____ 6. When were you born? _____

_____ 7. Who is the President of the U.S. now? _____

_____ 8. What was President just before him? _____

_____ 9. What was your mother's maiden name? _____

_____ 10. Subtract 3 from 20 and keep subtracting 3 from each new number, all the way down.

_____ Total Number of Errors

Appendix D

Demographic Data

Age (years): _____

Years of Education :	1) None	5) vocational
	2) gr. 1-6	6) college
	3) gr. 7-9	7) university
	4) gr. 10-12	8) other
Current Status:	1) never married	4) divorced
	2) widowed	5) married
	3) separated	6) common law
Income:	1) no income	4) $25, 000-$39,999
	2) below $15, 000	5) &40,000-$54,999
	3) $15,000-$24,999	6) $55, 000+
Living Environment:	1) house	4) auxiliary
	2) apartment	5) other_____
	3) lodge	
Related Chronic Medical Diagnosis	1) diabetes	4) congestive heart failure
	2) arthritis	5) other _____
	3) COPD	
Number of Children	1) 0	4) 4-5
	2) 1	5) 6+
	3) 2-3	
Past Occupation:	1) Clerical	4) Managerial/Professional
	2) Housewife	5) Healthcare Worker
	3) Teacher	6) other_____
Present Medications:	_____	_____
	_____	_____

Do you live alone? 1) yes 2) no
Do you feel sad? 1) yes 2) no

Who do you consider your major source of support?

_____

Are you satisfied with your support?

_____

Appendix E

Basic Activities of Daily Living (ADLs)

		Independent	
		Yes	No
1.	**Bathing** (sponge bath, tub bath, or shower) Receives either no assistance or assistance in bathing only 1 part of body	_____	_____
2.	**Dressing** Gets clothes and dresses without any assistance except for tying shoes	_____	_____
3.	**Toileting** Goes to toilet room, uses toilet, arranges clothes, and returns without any assistance (may use cane or walker for support and may use bedpan/urinal at night)	_____	_____
4.	**Transferring** Moves in and out of bed and chair without assistance (may use cane or walker)	_____	_____
5.	**Continence** Controls bowel and bladder completely by self (without occasional "accidents")	_____	_____
6.	**Feeding** Feeds self without assistance (except for help with cutting meat or buttering bread)	_____	_____

Total ADL score: (Number of "yes" answers, out of possible 6)

Appendix F

IADL

1. **Ability to use the telephone**
   a) operates telephone on own initiative-looks up & dials #'s
   b) dials a few well known numbers
   c) answers telephone, but doesn't dial
   d) does not use telephone at all

2. **Shopping**
   a) takes care of all the shopping needs independently
   b) shops independently for small purchases
   c) needs to be accompanied on any trip
   d) completely unable to shop

3. **Food Preparation**
   a) plans, prepare & serves adequate meals independently
   b) preps adequate meals if supplied with ingredients
   c) heats & serves prepared meals, or prepares meals
   but does not maintain adequate diet

4. **Housekeeping**
   a) maintains home alone or with occasional assistance
   b) performs light daily tasks such as dishwashing, bedmaking
   c) performs light daily tasks but cannot maintain acceptable level of cleanliness
   d) needs help with all home maintenance tasks
   e) does not participate in any housekeeping tasks

5. **Laundry**
   a) does personal laundry completely
   b) launders small items-rinses socks, stockings etc.
   c) all laundry must be done by others

6. **Mode of Transportation**
   a) travels independently on public transport or drives own car
   b) arranges own travel via taxi, but does not otherwise use public transport
   c) travels on public transport when assisted or accompanied
   d) travel limited to taxi or car with assistance of another
   e) does not travel at all

7. **Responsibility for own medication**
   a) is resp. for taking meds in correct doses at correct times
   b) takes resp. if med is prepared in advance in separate doses
   c) is not capable of dispensing own meds

8. **Ability to handle finances**
   a) manages financial matters independently (budgets, checks, rent, bills,goes to bank)
   b) manages day-to-day purchases, but needs help with banking, major purchases
   c) incapable of handling money

SCORE_____

Appendix G

New York Heart Association

Class 1: The patient has cardiac disease but no resulting limitation of physical activity. Ordinary physical activity does not cause undue fatigue, palpitation,dyspnea or anginal pain

Class 2: The patient has cardiac disease resulting in slight limitation of physical activity. The patient is comfortableat rest and in the performance of ordinary, light daily actvities. Greater-than-ordinary physical activity, such as heavy physical exertion, results in fatigue palpitation, dyspnea or anginal pain.

Class 3: The patient has cardiac disease resulting in marked limitation of physical activity. The patient is comfortableat rest. Ordinary physical actvity results in fatigue, palpitation, dyspnea or angnal pain.

Class 4: The patient has cardiac disease resulting in an inability to carry on any physical activity without discomfor. Symptoms of inadequate cardiac output, pulmonary congestion, systemic congestion or of the anginal syndrome may be present, even at rest. If any physica actvity is undertaken, discomfort is increased.

Appendix H

Guiding Interview Questions

Tell me about your experience of having a heart attack. You may begin anywhere you like.

I Do you think there is anything you have done to bring on this heart attack? What were the first symptoms you experienced? Can you describe the surrounding events? (precipitating events, place, time of day). What was going through your mind at the time? How did you make the decision to go to the hospital? (Call someone? ambulance? arrival time?) What do you think caused your heart attack?

II Tell me about your time in the hospital?

III Can you tell me about coming home? Biggest worry? Tell me about being at home for the first few days - weeks.

IV What has having a heart attack been like for you? How has it affected you? Your life? Your family? What are your worries, problems presently? Which of these concern you the most? Why?

V Did you receive any information in regards to your heart attack? What was the most helpful ? Least? What are the main questions since your heart attack? Have you been able to get your questions answered? Are you enrolled in a cardiac rehabilitation program? If so, did your doctor refer you? Do you have any thoughts about this type of a program (beneficial? barriers?)

VI What have been the outcomes of this experience for you?

VII What advice would you give women who find themselves in a similar position as yourself, being older and having had a heart attack?